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March 5, 2002



ENVIRONMENTAL ASSESSMENT  
FOR MARCH 5, 2002  
STATE OF MONTANA OIL AND GAS LEASE SALE

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MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION  
Trust Land Management Division  
Minerals Management Bureau  
Helena, MT



DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION

TRUST LAND MANAGEMENT DIVISION



JUDY H. MARTZ, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074  
TELEFAX NUMBER (406) 444-2684

PO BOX 201601  
HELENA, MONTANA 59620-1601

January 28, 2002

To Whom It May Concern:

I have reviewed the attached Environmental Assessment for the March 5 2002 lease sale. I concur with the recommendation to add to the basic State of Montana Oil and Gas lease the additional lease stipulations specified for each tract in Appendix A. In conjunction with the basic lease agreement, these stipulations sufficiently mitigate potential environmental concerns with leasing the proposed tracts. All tracts are stipulated for subsequent, site-specific environmental review if any activity is proposed on the surface of the tract. For tracts located on the area east of the Rocky Mountain Front, the "Rocky Mountain Front" stipulation is proposed. This stipulation expressly prohibits use of the surface of the tract unless the Land Board approves such use. Further, this stipulation explicitly reserves to the State the right to deny such use, if approval would not constitute the best use of trust resources or would not be in the best interest of the State of Montana. Accordingly, there is no need for an EIS for this lease sale.

A handwritten signature in cursive script, reading "Monte G. Mason".

Monte G. Mason, Chief  
Minerals Management Bureau

A handwritten date "1/28/02" in cursive script.

Date



# DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION



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### ENVIRONMENTAL ASSESSMENT

#### ON THE

MARCH 5, 2002

### OIL AND GAS LEASE SALE

Montana Department of Natural Resources and Conservation  
Trust Land Management Division

#### I. Introduction

The State of Montana owns over six million acres of oil and gas rights that are scattered across the state. The lands that these mineral rights lie under are varied, consisting of timber, grazing, and agricultural land. The state also owns mineral rights below navigable lakes and streams in Montana. Each land type will be impacted differently by oil and gas related activity.

This document contains the environmental review of lands nominated for oil and gas leasing for the **March 5, 2002** lease sale. Alternatives reviewed in this document are 1) No Action - deny the oil and gas lease; and 2) Approve the oil and gas lease with appropriate stipulations.

#### II. Purpose and Need for the Action

The Montana Department of Natural Resources and Conservation (DNRC) - Trust Land Management Division (TLMD) has received nominations for **75** tracts of land totaling **32,546.10** acres for the purpose of oil and gas exploration and development. A listing of these tracts and their locations are found in Appendix A.

Prior to leasing the nominated tracts, the TLMD must review each tract for potential impacts on the human and natural environment from oil and gas operations. By leasing lands for oil and gas exploration, the trusts administered by TLMD benefit from rental and potential royalty income. A copy of the lease form is included in Appendix B1.

#### III. Agency Responsibilities

##### A. Department of Natural Resources and Conservation

The Department of Natural Resources and Conservation (DNRC) - Trust Land Management Division (TLMD) is authorized to lease state-owned oil and gas for exploration and development (MCA 77-3-401, et seq.). Oil and gas lease sales occur quarterly, as required by ARM 26.3.206(1). Under the Montana Environmental Policy Act (MCA 75-1-201, et seq.), the TLMD must review leasing of nominated tracts for potential impacts on the human and natural environment prior to leasing unless a clause for denial of activity is added to the lease.



The TLMD must decide whether to lease the nominated tracts with appropriate stipulations or deny leasing.

#### B. Board of Oil and Gas Conservation

The Board of Oil and Gas Conservation (BOGC) is responsible for requiring "measures to be taken to prevent contamination of or damage to surrounding land or underground strata caused by drilling operations and production..." (MCA 82-11-111(2)(a)). The BOGC issues permits for oil and gas drilling operations (MCA 82-11-122), and also oversees proper plugging and abandonment of seismic shotholes and oil and gas wells (MCA 82-11-123(4)). All permitting by the BOGC is subject to an environmental review under the Montana Environmental Policy Act (MCA 75-1-201, et seq.). A programmatic EIS on oil and gas activity was completed by the BOGC in 1989 (BOGC, 1989) and is incorporated in this EA by reference. TLMD adopts the conclusions and information contained in that EIS.

The BOGC is not involved in leasing decisions taken by the TLMD.

#### IV. Procedure

Notification of the tracts nominated for lease was submitted to the following agencies and individuals for review and comments:

Montana Department of Natural Resources and Conservation - Trust Land  
Management Division Area Office Managers  
Montana Department of Natural Resources and Conservation - TLMD  
Archeologist and Hydrologist/geologist  
Montana Department of Natural Resources and Conservation - TLMD  
Minerals Management Bureau Chief, Forest Management Bureau  
Chief, and Land Management Section Supervisor - Agricultural  
and Grazing Bureau  
Montana Department of Fish, Wildlife and Parks Regional Offices and  
Field Biologists at applicable Area Resource Offices  
Montana Natural Heritage Program  
Lewis and Clark National Forest Supervisor  
Bureau of Land Management, Billings  
U.S.D.I. Fish and Wildlife Service  
Bureau of Indian Affairs, Fort Peck Agency  
Oil and Gas Lease Sale Mailing List  
Department Website  
(<http://www.dnrc.state.mt.us/trust/tlmdhome.htm>)

Comments received from these agencies and individuals are reviewed and stipulations are developed for each tract nominated for leasing. Agency comments are located in Appendix C. Appendix D is used for public comments. The department received 4 public comments as of the January 25, 2002 public comment deadline. The department has received no late comments as of the January 28, 2002 completion of this environmental assessment. If any late comments regarding the March 5, 2002 sale are received after this time, they will be included in Appendix E in the EA file.

Issues reviewed for this process include:

The presence of sensitive plant and animal communities.  
The presence of historical or cultural sites.  
Potential impacts of oil and gas related activities on soils,  
hydrology, wildlife, vegetation, and human resources.





Potential for "No Surface Occupancy" restrictions.  
Potential conflicts with current land use (such as  
Federal Farm Programs including CRP).  
Other potential resources for the tract.

Field evaluations from past inspections, information from DNRC-TLMD field office files, and, if necessary, additional on-site evaluations are used by the TLMD field staff in assessing potential impacts from oil and gas leasing and subsequent development. Information contained in the programmatic EIS produced by the BOGC (BOGC, 1989) is also utilized in determining the potential impacts of future oil and gas development for the nominated tracts. Stipulations are then attached to the lease to provide resource protection during future lease operations. These stipulations range from strict, no surface occupancy restrictions to requirements for operating plan approval (with the potential of future denial) to buffer and avoidance stipulations, and surface damage settlement issues. A list of example stipulations is located in Appendix B2. Four of these stipulations, A-2, B, C, and D, are placed on all leases and are denoted in Appendix B2 with an asterisk. Operating plan review is required on all leases either through the use of stipulation A-1 or the sensitive areas stipulations F-1, F-2, or F-3 (see Appendix B2).

The Montana State Board of Land Commissioners adopted the following resolution at their June 18, 2001 meeting:

"The approval of the June 5, 2001 oil and gas lease sales in no way commits the land board to approval of coal bed methane production on these or any other outstanding leases. Any coal bed methane extraction wells would require subsequent review and approval by the board."

Since it is unknown at the time of leasing the type of targets that are being sought, stipulation A-2 has been modified to include Land Board review of any coal bed methane activities.

For all nominated tracts, additional environmental assessments will be completed with the receipt of an operating plan by both TLMD and the BOGC. Potential problems are mitigated at that time through modifications in the plan. TLMD can not deny drilling of a well unless stipulated at the time of the lease, but stipulations can be added to the operating plan to mitigate impacts. The BOGC, however, may deny a drilling permit or include additional stipulations in the drilling permit.

For tracts nominated in potentially sensitive areas, three special stipulations have been developed (Appendix B2, stipulations F-1, F-2, and F-3). These stipulations create a tiered environmental review process with the potential for future denial of activities. An impact analysis is not required prior to leasing a tract with a sensitive area stipulation. (North Fork Preservation Assoc. v. Dept. of State Lands, 238 Mont. 451, 778, P.2d 862 (1989); Conner v. Burford, 836 F.2d 1521 at 1528 (9th Cir., 1988)). When activity is proposed on a lease, the operating plan receives an environmental review. This review consists of an evaluation of impacts of the proposed action. Additional stipulations and mitigating measures may be required prior to the activity, or activity may be denied. Depending on the location and potential impacts from the specific activity proposed, this environmental review could consist of a basic Environmental Assessment up to a full Environmental Impact Statement. Additional environmental assessments may be necessary with further development of the lease. Environmental assessments are completed as necessary throughout the term of the lease.



The Trust Land Management Division of DNRC developed the sensitive areas stipulation (F-1, Appendix B2) for areas that contain some elements that are environmentally sensitive, but are not location dependant. However, this stipulation has also been utilized where state mineral estate is in or immediately adjacent to cities, parks, wildlife refuges, Indian reservations, or Forest Service land, etc. in compliance with State Land Board direction.

The State Land Board developed stipulation F-2 to address the level of interest and concern expressed over leasing and possible development of state lands located in western Teton and northwestern Lewis and Clark Counties (i.e. the lower elevation eastern slopes of the Rocky Mountain Front, generally west of Choteau and Augusta). Stipulation F-2 (Appendix B2) outlines Land Board review and approval and delineates the review process.

Stipulation F-3 (Appendix B2) has been developed to address the level of interest and concern expressed for school trust land within or adjacent to the Sleeping Giant and Sheep Creek Wilderness Study Area, the Beartooth State Wildlife Management Area, and/or the Gates of the Mountains Wilderness. These areas fall outside the Rocky Mountain Front description noted above. The F-3 sensitive area stipulation is similar to F-2 in that it specifically outlines Land Board review and approval and delineates the review process. As a part of this review "No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board." After completion of the review, the Land Board may approve, modify, or deny surface activity on the lease.

## **V. Public Notification**

Public notice of nominated tracts and request for comments is made two months prior to the lease sale in the Rocky Mountain Oil Journal, Billings Gazette, Great Falls Tribune, and Helena Independent Record. The tract list is sent to everyone on the Department's mailing list of approximately 800 individuals, organizations, and companies. Anyone can be added to the mailing list by contacting the Department. Lease sale lists, dates, and important deadlines are also available on the Department's Internet web site (<http://www.dnrc.state.mt.us/trust/tlmdhome.htm>). After completion of the Oil and Gas Lease Sale EA, the list of nominated tracts and attached stipulations is published in the Rocky Mountain Oil Journal, made available on the Department's Internet web site, and mailed to everyone on the Department's mailing list.

## **VI. Resource Analysis**

The following issues were analyzed for potential impact on state owned land:

### **A. Wildlife:**

Potential impacts on wildlife for each tract are analyzed by the Department of Natural Resources and Conservation (DNRC) - Trust Land Management Division (TLMD) field office staff with additional input from the MT Department of Fish, Wildlife and Parks (DFWP) regional office staff. Letters requesting information on potential impacts from oil and gas activities are sent to each DFWP regional office by electronic mail or postal mail. Information provided by the MT Natural Heritage Program (MNHP) is also reviewed. Based on comments and information provided, stipulations are applied to protect wildlife resources. If no site-specific response is received from DFWP or TLMD field offices, and the MNHP search turns up no element occurrence data, then no additional stipulations are



added to the tract. However, the standard operating plan review stipulation (number 1 in the application list in Appendix A) still allows coverage of wildlife concerns that may arise in any subsequent site-specific review.

For the March 5, 2002 MT Oil and Gas Lease Sale, several stipulations have been applied to various tracts due to wildlife concerns. Both the sensitive areas stipulation and the Rocky Mountain Front sensitive areas stipulation are proposed for use in this environmental assessment. DNRC tracts on the Rocky Mountain Front in Lewis and Clark County for which the Rocky Mountain Front sensitive areas stipulation (number 16 in the application list in Appendix A, F-2 in Appendix B2) is recommended are application numbers 5057 through 5075. Utilization of this stipulation on these tracts would address wildlife concerns for various species, including grizzly bears, lynx, ferruginous hawks, northern goshawks, elk, westslope cutthroat trout, and trumpeter swans. The sensitive areas stipulation (number 15 in Appendix A, F-1 in Appendix B-2) which is applied to application number 5056 in Lewis and Clark County covers concerns for lynx and bighorn sheep.

The wildlife survey stipulation (see number 11 in Appendix A) is utilized on application number 5054 in Carbon County for prairie dogs. In Petroleum County (application numbers 5014-5017) the wildlife survey stipulation is applied for ferruginous hawks and sage grouse.

The TLMD contact MT-DFWP regarding wildlife concerns stipulation (number 12, Appendix A) is utilized in Fergus County on application number 5018 for MT-DFWP's concern for turkeys, mule deer, white-tailed deer, and elk. The stream, etc. buffer stipulation (number 7, Appendix A) applied to this tract would cover water and fisheries concerns.

The navigable river (no-surface occupancy) stipulation is utilized on application numbers 5007 and 5008 in Dawson County. It covers wildlife and fishery concerns for the Yellowstone River and related acreage including: spiny softshell, interior least terns, pallid sturgeon, sturgeon chub, blue suckers, and paddlefish.

#### B. Water Quality:

Potential impacts on surface water resources are analyzed by the TLMD field office staff and the TLMD hydrologist/geologist. Notation is made on locations of perennial and intermittent streams, lakes, ponds, wetlands, springs, wells, ditches, canals, prairie potholes, etc. within a nominated tract. If set-backs from water resources are required, a stipulation is applied to protect these resources. Ground water resource protection is required by the BOGC, and BOGC permitting is contingent on adequate protection. For this lease sale the 100-ft stream, wetland, reservoir, etc. buffer stipulation is utilized for various scenarios on 49 tracts (see stipulation 7 in application list in Appendix A). Streams, ponds, wetlands, reservoirs, etc. on application numbers 5057 through 5075 in Lewis and Clark County are covered by utilization of the Rocky Mountain Front sensitive areas stipulation (number 16, Appendix A) on these tracts. These areas on application number 5056 in Lewis and Clark County and number 5029 in Valley County are covered by the use of the sensitive areas stipulation (number 15, Appendix A) on these tracts.

Other stipulations are applied to larger water bodies. For this sale, the navigable river (no-surface occupancy) stipulation (see stipulation 14, Appendix A) is applied to application numbers 5007 and 5008 in Dawson County for the





Yellowstone River and related acreage in Sections 5 and 8, T14N, R55E. The river, lake/reservoir (1/8-mile) buffer stipulation (see stipulation 13, Appendix A) is utilized on application number 5001 in Glacier County due to a prairie pothole lake.

#### C. Soils and Topography:

TLMD field office personnel review soil surveys conducted by the USDA-NRCS along with field notes from previous inspections to determine the potential for impacts to fragile soils. If protection of fragile soils is needed, a stipulation is implemented to protect the resource. The TLMD field office personnel and the TLMD geologist/hydrologist also review topographic maps to obtain an indication of the topography. For the March 5, 2002 MT Oil and Gas Lease Sale, rough/steep topography or fragile, unstable soils have resulted in stipulation 10 (see Appendix A) being applied to application number 5018 in Fergus County, number 5014 in Petroleum County, and numbers 5024 and 5032 in Valley County. Soils and other surface concerns that may arise during a site-specific review are also handled through the standard operating plan review stipulation (see number 1, Appendix A). Steep/rough topography and/or unstable soils on Lewis and Clark County tracts, (application numbers 5057 through 5075) are addressed by utilization of the Rocky Mountain Front sensitive areas stipulation (number 16, Appendix A). These concerns are covered for application number 5056 in Lewis and Clark County and number 5029 in Valley County by application of the sensitive areas stipulation (number 15, Appendix A) on these tracts.

#### D. Vegetation

TLMD field office personnel review records in the office for potential impacts on vegetation in an area. Information provided by the Montana Natural Heritage Program is also reviewed by the TLMD geologist/hydrologist. If rare plants or potential for significant impacts exist on a tract, stipulations are implemented to protect these resources. For this sale, the Montana Natural Heritage Program indicated Great Basin Downingia to be of potential concern in Lewis and Clark County in T20N, R6W, northeast of school trust land in T19N, R07-08W. Vegetation concerns are covered by utilization of the Rocky Mountain Front sensitive areas stipulation (number 16, Appendix A) on application numbers 5057 through 5075 in Lewis and Clark County.

In addition, some tracts contain wooded areas that occur outside the zone covered by the riparian buffer stipulation (number 7, Appendix A). In order to minimize disturbance to this vegetation, the avoid wooded areas stipulation (see stipulation 9, Appendix A) is utilized on application number 5018 in Fergus County, number 5017 in Petroleum County, and number 5030 in Valley County for the March 5, 2002 MT Oil and Gas Lease Sale. For tracts in Lewis and Clark County (application numbers 5057 through 5075) where the Rocky Mountain Front sensitive areas stipulation (number 16, Appendix A) is utilized, wooded areas are covered by this stipulation. The sensitive areas stipulation (number 15, Appendix A) provides for review of wooded areas and/or other vegetation on application number 5056 in Lewis and Clark County and number 5029 in Valley County.

Since weeds are a concern throughout Montana, a stipulation is added to each lease (see stipulation 4 in Appendix A). This stipulation holds the lessee responsible for controlling noxious weeds introduced by the lessee's activity on the tract and preventing their spread. Where weeds are especially a problem, a special stipulation (see stipulation W in Appendix B2) is utilized in addition to stipulation 4. No tracts on the March 5, 2002 sale required this special weed stipulation.





#### E. Land use conflicts:

Nominated tracts are reviewed by TLMD field office personnel for current land use, and potential conflicts are noted. Each lease contains a clause that indicates the oil and gas lessee agrees to be responsible for payment of actual surface damages arising from oil and gas exploration or development. A special stipulation is added to the lease for land involved in the Conservation Reserve Program (CRP) (Appendix A, stipulation 8). This stipulation is applied to application numbers 5011 and 5012 in Daniels County, number 5010 in Richland County, and number 5004 in Sheridan County. The lease terms also prohibit drilling within 200 feet of a residence or barn (see Appendix B1, Section 28 of the example lease form). Usually, oil and gas activity only impacts a small portion of any lease, and conflicts with current land use are rare.

Special stipulations are also utilized for information, for avoidance, or other needed mitigation as warranted. The March 5, 2002 MT Oil and Gas Lease Sale did not have tracts warranting potential restrictions due to existing surface uses, i.e. irrigation center pivots, on this tract.

Furthermore, areas where the state does not own the surface receive the stipulation requiring contact of the surface owner. These tracts occur in varied locations and are also designated in the application list by text and an asterisk (see Appendix A, stipulation 6). This contact stipulation is applied to 11 tracts on the March 5, 2002 MT Oil and Gas Lease Sale.

#### F. Historical and Cultural Resources:

Each nominated tract is reviewed by the TLMD archeologist for the presence of known historical or cultural sites and for the potential of discovery of a new historical or cultural site. Where applicable, TLMD field office staff and the TLMD geologist/hydrologist are consulted regarding paleontological resources on the tracts. A stipulation is added to each lease that protects archaeological, historic, and paleontological sites, and surface activities may be restricted if a significant site is discovered during the lease term (see Appendix A, stipulation 3).

#### G. Existing facilities/Geologic potential

Each nominated tract is reviewed by the TLMD geologist/hydrologist and Minerals Management Bureau Chief for production potential, production or drilling history, and existing facilities. If concerns exist, stipulations are added to the lease. Example stipulations for these circumstances are located in Appendix B2, stipulations K-M. No tracts on the March 5, 2002 sale required any of these stipulations.

#### H. Sensitive Areas

The reasons for sensitive area concerns are varied. They can stem from location of the area or result from concerns regarding one or more of the resource areas mentioned above. For tracts nominated in potentially sensitive areas, three special stipulations have been developed that create a tiered environmental review process with the potential for future denial of activities (Appendix B2, stipulations F-1, F-2, and F-3). For the March 5, 2002 MT Oil and Gas Lease Sale, MT-DNRC received 4 public comments regarding Rocky Mountain Front tracts in Lewis and Clark County by the January 25, 2002 comment deadline. These 4 letters (see Appendix D) advocated application of the Rocky Mountain Front sensitive areas stipulation to tracts in Lewis and Clark County. As of the January 28, 2002 completion of this environmental assessment, the Department has not received any late comments.



The MT-DNRC proposes to apply the Rocky Mountain Front sensitive areas stipulation (number 16 in the application list in Appendix A) to 19 tracts on the March 5, 2002 MT Oil and Gas Lease Sale. This recommendation is proposed for application numbers 5057 through 5075 in Lewis and Clark County. This proposal is due to the location of these school trust lands in northwestern Lewis and Clark County, i.e. (the lower elevation eastern slopes of the Rocky Mountain Front, generally west of Choteau and Augusta) and proximity to areas with concerns including wildlife, water quality, and vegetation.

Pursuant to the Rocky Mountain Front sensitive areas stipulation, "No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board." After completion of an environmental review, the Land Board may approve, modify, or deny surface activity on the lease.

Use of the Rocky Mountain Front stipulation by the Land Board results in a lease agreement that expressly precludes any utilization of the surface by the lessee, unless the lessee can formulate an operating and reclamation plan that meets the Land Board's approval as constituting the best use of trust resources or the best interest of the State of Montana. The stipulation also recognizes and requires that any surface utilization of the lease lands would have to adhere to applicable resource guidelines prepared by the Montana Department of Fish, Wildlife and Parks. The stipulation also expressly incorporates a requirement that the environmental impact statement include impact analysis on an ecosystem scale. Therefore, the broad socioeconomic and natural resource concerns expressed by some commentators relative to the overall impacts from surface use of state lands for exploration or development will be addressed if/when a proposal for use is submitted by the lessee. It is important to note that, unlike the large blocks of Federal ownership along the Rocky Mountain Front, a decision by the Land Board on whether to allow school trust lands to be utilized for exploration or development does not determine whether such activity will occur. The state school trust parcels are scattered along the eastern transition area east of the Front, within an area where private mineral ownership is abundant. The Land Board does not have authority over private land interests.

In addition, the sensitive areas stipulation (number 15, Appendix A) is applied to one tract in Lewis and Clark County, (application number 5056) due to its location west of Wolf Creek in central Lewis and Clark County and its location within the Montana Natural Heritage Program's lynx area and in an area designated by MT Dept. of Fish, Wildlife and Parks as bighorn sheep range. In accordance with previous Land Board direction, the sensitive areas stipulation (number 15 in Appendix A, F-1 in Appendix B2) is also utilized on application number 5029 in Valley County due to its location adjacent to the Bitter Creek Wilderness Study Area.

## **VII. Impact Analysis**

### **A. No Action Alternative - Deny the oil and gas lease.**

If a lease is denied, the only resource that would be negatively impacted is the loss of revenue from rental and royalty payments to the appropriate trust. All other resources would not be affected.

### **B. Leasing Alternative**

Comments received on potential impacts for these tracts are located in Appendices C, D, and E. MT-DNRC submitted the proposed tract list for agency comments on December 27-28, 2001 and requested comments by January 23, 2002 for



consideration in formulating the stipulations. Agency comments are included in Appendix C. The tract list was made available to the public in early January 2002 for interested party comments. These comments must have been received by **January 25, 2002** for consideration in formulating the stipulations. Public comments are included in Appendix D. Late comments would be located in Appendix E, but none have been received as of the January 28, 2002 completion date of this environmental assessment. Tracts nominated for oil and gas leasing and proposed stipulations are listed in Appendix A.

#### **VIII. Need for an Environmental Impact Statement**

The DNRC-TLMD is required to evaluate each action to a "level of detail appropriate to the following considerations: ...the complexity of the proposed action,...the environmental sensitivity of the area affected,...the degree of uncertainty that the proposed action will have a significant impact on the quality of the human environment,...and...the need for and complexity of mitigation required to avoid the presence of significant impacts" (ARM 26.2.645 (2)).

Since environmentally sensitive tracts are stipulated for future environmental review with the submittance of an operating plan, all other tracts nominated are located in areas where potential impacts are minor or can be mitigated upon receipt and review of an operating plan, and the BOGC must approve an operating plan within MEPA prior to drilling activity, an Environmental Impact Statement is not required for the leasing action.

#### **IX. Preparers**

Compilation and preparation:

Teresa Kinley, Geologist/Hydrologist, Department of Natural Resources and Conservation (DNRC) - Trust Land Management Division (TLMD)

Agencies and persons consulted:

Monte Mason, Minerals Management Bureau Chief, DNRC-TLMD  
Patrick Rennie, Archeologist, DNRC-TLMD  
Craig Roberts, Area Manager, Northeast Land Office, DNRC-TLMD  
Mark Ahner, Area Manager, Central Land Office, DNRC-TLMD  
Dwayne Andrews, Area Manager, Eastern Land Office, DNRC-TLMD  
Bob Harrington, Area Manager, Southern Land Office, DNRC-TLMD  
Mike Aderhold, Regional Supervisor, DFWP Region 4  
Harvey Nyberg, Regional Supervisor, DFWP Region 5  
Jim Satterfield, Regional Supervisor, DFWP Region 6  
Don Hyppa, Regional Supervisor, DFWP Region 7  
Paul Sihler, Montana Dept. Of Fish, Wildlife and Parks, Helena  
Martin Miller, Montana Natural Heritage Program  
Fred Wambolt, Bureau of Land Management, Miles City

#### **X. References**

Board of Oil and Gas Conservation. 1989. Programmatic Environmental Impact Statement on Oil and Gas Drilling and Production in Montana, (draft: Jan, 1989, final: Dec, 1989).









APPENDIX A: Nominated Tract Locations and Stipulations



STATE OF MONTANA  
OIL & GAS LEASE SALE - MARCH 5, 2002

PRE-SALE APPLICATION REPORT

APP#	STIP	TWP	RGE	SEC	DESCRIPTION	ACRES
LESSOR: DEPT OF NATURAL RESOURCES & CONSERVATION						
CARBON						
5054	1,2,3,4,5,11	4.S	21.E	36	LOTS 1, 2, 3, 4, SW4NE4, E2SW4, W2SE4	358.00
5055	1,2,3,4,5,7	5.S	22.E	16	ALL	640.00
DANIELS						
5011	1,2,3,4,5,7,8	34.N	45.E	1	LOTS 3, 4, S2NW4, SW4	320.90
5012	1,2,3,4,5,7,8	34.N	46.E	6	LOTS 1 THRU 7, S2NE4, SE4NW4, E2SW4, SE4	629.97
5013	1,2,3,4,5,6	34.N	46.E	7	LOTS 1, 2, E2NW4, NE4 *	314.71
DAWSON						
5007	1,2,3,4,5,14	14.N	55.E	5	YELLOWSTONE RIVERBED AND RELATED ACREAGE	197.90
5008	1,2,3,4,5,14	14.N	55.E	8	YELLOWSTONE RIVERBED AND RELATED ACREAGE	166.00
FERGUS						
5018	1,2,3,4,5,7,9,10,12	13.N	20.E	16	ALL	640.00
GLACIER						
5001	1,2,3,4,5,13	36.N	5.W	20	SW4SE4	40.00
5002	1,2,3,4,5,7	36.N	5.W	27	SW4NW4, NW4SW4, S2SW4	160.00
5003	1,2,3,4,5,7	36.N	5.W	29	S2N2, NW4NE4	200.00
HILL						
5005	1,2,3,4,5,7	36.N	13.E	36	ALL	640.00
LEWIS & CLARK						
5056	2,3,4,5,15	15.N	4.W	32	LOTS 1 THRU 8, E2	624.72
5057	2,3,4,5,16	19.N	7.W	8	N2N2, NE4SW4	200.00
5058	2,3,4,5,6,16	19.N	7.W	10	N2NW4 *	80.00
5059	2,3,4,5,6,16	19.N	7.W	14	SW4SW4 *	40.00
5060	2,3,4,5,6,16	19.N	7.W	15	NW4NW4, SE4SW4, S2SE4 *	160.00
5061	2,3,4,5,16	19.N	7.W	16	ALL	640.00
5062	2,3,4,5,16	19.N	7.W	17	E2NE4, SW4NE4, NW4, S2	600.00



APP#	STIP	TWP	RGE	SEC	DESCRIPTION	ACRES
5063	2,3,4,5,16	19.N	7.W	18	E2E2	160.00
5064	2,3,4,5,16	19.N	7.W	19	LOTS 1, 2, 3, E2NE4, NW4NE4, E2NW4	321.65
5065	2,3,4,5,16	19.N	7.W	20	NW4NE4, S2NE4, NE4NW4, NE4SW4, N2SE4	280.00
5066	2,3,4,5,16	19.N	7.W	21	S2SW4	80.00
5067	2,3,4,5,6,16	19.N	7.W	23	W2W2	* 160.00
5068	2,3,4,5,16	19.N	7.W	28	NW4NW4, S2NW4	120.00
5069	2,3,4,5,6,16	19.N	7.W	29	NE4NE4, NW4	* 200.00
5070	2,3,4,5,6,16	19.N	7.W	30	NE4, N2SE4, SW4SE4	* 280.00
5071	2,3,4,5,16	19.N	7.W	32	N2NE4, SE4NE4, NE4NW4	160.00
5072	2,3,4,5,16	19.N	7.W	34	N2N2, NE4SW4, SE4	360.00
5073	2,3,4,5,6,16	19.N	7.W	36	ALL	* 640.00
5074	2,3,4,5,16	19.N	8.W	4	LOTS 3, 4, S2NW4, NW4SE4, S2SE4	282.56
5075	2,3,4,5,16	19.N	8.W	5	LOTS 1, 2, 3, 4, S2N2, SE4SW4, SE4, N2SW4	603.40
MCCONE						
5006	1,2,3,4,5,7	22.N	47.E	20	S2NW4, N2SW4, SE4SW4, S2SE4	280.00
PETROLEUM						
5014	1,2,3,4,5,7,10,11	15.N	25.E	16	N2	320.00
5015	1,2,3,4,5,7,11	15.N	25.E	24	SW4	160.00
5016	1,2,3,4,5,6,7,11	15.N	25.E	29	NW4, S2	* 480.00
5017	1,2,3,4,5,6,7,9,11	15.N	25.E	30	LOTS 1, 2, 3, 4, E2, E2W2	* 620.40
RICHLAND						
5009	1,2,3,4,5,7	24.N	55.E	16	ALL	640.00
5010	1,2,3,4,5,7,8	25.N	56.E	36	ALL	640.00
SHERIDAN						
5004	1,2,3,4,5,6,7,8	36.N	53.E	36	ALL	* 640.00
VALLEY						
5019	1,2,3,4,5,7	32.N	39.E	1	LOTS 1 THRU 12, S2	704.36
5020	1,2,3,4,5,7	32.N	39.E	2	LOTS 1, 2, 4, 5, 7 THRU 12, S2	648.51
5021	1,2,3,4,5,7	32.N	39.E	3	LOTS 1 THRU 12, S2	703.68
5022	1,2,3,4,5,7	32.N	39.E	4	LOTS 1 THRU 12, S2	704.76
5023	1,2,3,4,5,7	32.N	39.E	5	LOTS 1, 8, 9, SE4	256.55
5024	1,2,3,4,5,7,10	32.N	39.E	11	N2, W2SW4	400.00
5025	1,2,3,4,5,7	32.N	39.E	12	ALL	640.00
5026	1,2,3,4,5,7	32.N	40.E	6	LOTS 3, 4, 5, 6, 11, 12, S2	511.62
5027	1,2,3,4,5,7	32.N	40.E	7	ALL	640.00
5028	1,2,3,4,5,7	32.N	40.E	18	E2	320.00
5029	2,3,4,5,15	33.N	38.E	16	ALL	640.00



APP#	STIP	TWP	RGE	SEC	DESCRIPTION	ACRES
5030	1,2,3,4,5,7,9	33.N	38.E	36	ALL	640.00
5031	1,2,3,4,5,7	33.N	39.E	3	ALL	640.00
5032	1,2,3,4,5,7,10	33.N	39.E	4	ALL	640.00
5033	1,2,3,4,5,7	33.N	39.E	5	SW4, E2	480.00
5034	1,2,3,4,5,7	33.N	39.E	6	LOTS 1 THRU 6, NE4	392.21
5035	1,2,3,4,5,7	33.N	39.E	9	ALL	640.00
5036	1,2,3,4,5,7	33.N	39.E	10	ALL	640.00
5037	1,2,3,4,5,7	33.N	39.E	15	NW4, N2SW4, SE4	400.00
5038	1,2,3,4,5,7	33.N	39.E	16	N2, SW4, N2SE4	560.00
5039	1,2,3,4,5,7	33.N	39.E	17	SE4	160.00
5040	1,2,3,4,5,7	33.N	39.E	19	LOTS 1, 6, 7, 12, E2	480.00
5041	1,2,3,4,5,7	33.N	39.E	20	ALL	640.00
5042	1,2,3,4,5,7	33.N	39.E	21	W2NW4, SW4, S2SE4	320.00
5043	1,2,3,4,5,7	33.N	39.E	22	E2, SE4NW4, E2SW4, SW4SW4	480.00
5044	1,2,3,4,5,7	33.N	39.E	26	ALL	640.00
5045	1,2,3,4,5,7	33.N	39.E	27	ALL	640.00
5046	1,2,3,4,5,7	33.N	39.E	28	ALL	640.00
5047	1,2,3,4,5,7	33.N	39.E	29	ALL	640.00
5048	1,2,3,4,5,7	33.N	39.E	30	LOTS 1 THRU 12, E2	791.20
5049	1,2,3,4,5,7	33.N	39.E	31	LOTS 1 THRU 11, NE4	526.60
5050	1,2,3,4,5,7	33.N	39.E	32	LOT 4, N2	346.40
5051	1,2,3,4,5,7	33.N	39.E	33	N2	320.00
5052	1,2,3,4,5,7	33.N	39.E	34	N2	320.00
5053	1,2,3,4,5,7	33.N	39.E	35	N2	320.00

\* Part or all of the tract is not state-owned surface.

Additional lease stipulations are listed on the following pages. The STIP column on the lease sale list identifies which stipulations will be attached to each tract.

Sight drafts will not be accepted. The State Board of Land Commissioners reserves the right to reject any and all bids. All payments are due within ten days after date of sale.

An Environmental Assessment is available upon request from the Department of Natural Resources and Conservation, Trust Land Management Division, P.O. Box 201601, Helena, MT 59620-1601.

Individuals with disabilities needing assistance or special services, please call Julie David at (406) 444-4576 at least 1 week prior to the sale.

STATE BOARD OF LAND COMMISSIONERS





## STIPULATIONS

1. Lessee shall notify and obtain approval from the Department's Trust Land Management Division (TLMD) prior to constructing well pads, roads, power lines, and related facilities that may require surface disturbance on the tract. Lessee shall comply with any mitigation measures stipulated in TLMD's approval.
2. Prior to the drilling of any well, lessee shall send one copy of the well prognosis, including Form 22 "Application for Permit" to the Department's Trust Land Management Division (TLMD). After a well is drilled and completed, lessee shall send one copy of all logs run, Form 4A "Completion Report", and geologic report to TLMD. A copy of Form 2 "Sundry Notice and Report of Wells" or other appropriate Board of Oil and Gas Conservation form shall be sent to TLMD whenever any subsequent change in well status or operator is intended or has occurred. Lessee shall also notify and obtain approval from the TLMD prior to plugging a well on the lease premises.

Issuance of this lease in no way commits the Land Board to approval of coal bed methane production on this lease. Any coal bed methane extraction wells would require subsequent review and approval by the board.

3. The TLMD will complete an initial review for cultural resources and, where applicable, paleontological resources of the area intended for disturbance and may require a resources inventory. Based on the results of the inventory, the TLMD may restrict surface activity for the purpose of protecting significant resources located on the lease premises.
4. The lessee shall be responsible for controlling any noxious weeds introduced by lessee's activity on State-owned land and shall prevent or eradicate the spread of those noxious weeds onto land adjoining the lease premises.
5. The definitions of "oil" and "gas" provided in 82-1-111, MCA, do not apply to this lease for royalty calculation purposes.
6. Lessee must contact the owner of the surface in writing at least 30 days prior to any surface activity. A copy of the correspondence shall be sent to TLMD.
7. No activity shall be allowed within 100 feet of any perennial or seasonal stream, pond, lake, prairie potholes, wetland, spring, reservoir, well, aqueduct, irrigation ditch, canal, or related facilities without prior approval of the TLMD.
8. The lessee is responsible to pay for all damages, including penalties and charges assessed by the USDA-CFSA on CRP lands, as a result of drilling and production on the tract. All damages will be assessed by and paid directly to the TLMD.
9. Wooded areas on this tract will be avoided unless otherwise authorized by the TLMD.
10. Due to unstable soil conditions on this tract and/or topography that is rough and/or steep, surface use may be restricted or denied. Seismic activity may be restricted to poltershots.
11. Wildlife species of concern have been identified on or near this tract. A survey in areas of proposed activity may be required prior to disturbance. Identified species will be avoided, unless otherwise authorized by the TLMD. Additional mitigation measures may also be required.



## STIPULATIONS

12. Potential wildlife conflicts have been identified for this tract. The TLMD will contact the Montana Department of Fish, Wildlife, and Parks office in the area for advice on alleviating any possible conflicts caused by lessee's proposed activities. Additional mitigation measures may be required.
13. Any activity within 1/8 mile of the river or lake/reservoir on or adjacent to this tract must be approved in writing by the TLMD prior to commencement. No surface occupancy is allowed within the bed of the river, abandoned channels, the bed of the lake/reservoir, or on islands and accretions associated with the river or lake/reservoir.
14. This tract contains navigable river beds. No surface occupancy is allowed within the bed of the navigable river, abandoned channels, or on islands and accretions. In addition, upon completion of a successful well, where river title is disputed, the lessee will file an interpleader action under Rule 22, M.R.Civ.P. in the Montana District Court in which the leased lands are located for all acreage within the lease in which the title is disputed. The lessee shall name all potential royalty claimants as defendants.
15. This lease includes areas that may be environmentally sensitive. Therefore, if the lessee intends to conduct any activities on the lease premises, the lessee shall submit to TLMD one copy of an Operating Plan or Amendment to an existing Operating Plan, describing in detail the proposed activities. No activities shall occur on the tract until the Operating Plan or Amendments have been approved in writing by the Director of the Department. TLMD shall review the Operating Plan or Amendment and notify the lessee if the Plan or Amendment is approved or disapproved.

After an opportunity for an informal hearing with the lessee, surface activity may be denied or restricted on all or portions of any tract if the Director determines in writing that the proposed surface activity will be detrimental to trust resources and therefore not in the best interests of the trust.

16. This lease is located near the Rocky Mountain Front and includes areas that are environmentally sensitive. Therefore, except as otherwise provided below, the lessee shall not conduct any surface operations on the lease premises. If the lessee determines that surface operation on the lease premises may be required, the lessee shall submit a proposed Operating Plan or Amendment to an existing Operating Plan to the State Board of Land Commissioners describing in detail the proposed operations. No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board. In determining whether to approve the proposed Operating Plan or Amendment, the following provisions shall apply:

- 1) If the lessee proposes an activity that does not entail any significant surface disturbance, the Board may approve the same after completion of the appropriate environmental review in accordance with the Montana Environmental Policy Act (MEPA) and an opportunity for public comment on the proposed activity has been provided.

- 2) Before the Board approves any proposed activity on the lease premises that entails a significant surface disturbance, an environmental impact statement (EIS) shall be completed in accordance with MEPA. The EIS shall analyze the potential impacts of alternative and future potential levels of oil and gas development and extraction on an ecosystem scale as the ecosystem is defined by the "Limits of Acceptable Change - Bob Marshall Wilderness Complex" adopted by the Montana Department of Fish, Wildlife and Parks in December 1991. The



## STIPULATIONS

analysis shall consider all relevant information, which may include, but is not limited to, existing environmental reviews and management plans. Public involvement in the environmental review process shall be actively solicited by the preparer of the environmental review document and shall include, at minimum, adequately noticed public meetings in at least three communities including Great Falls and Helena.

3) The proposed surface activity shall adhere to the "Interagency Rocky Mountain Front, Wildlife Monitoring/Evaluation Program, Management Guidelines for Selected Species" adopted by the Montana Department of Fish, Wildlife and Parks in September 1987, or any successor guidelines thereto.

4) The Board may refuse to approve any proposed surface operations if it determines that they do not constitute the best use of trust resources or are not in the best interest of the State of Montana.









Appendix B1: Example Oil and Gas Lease.



# State of Montana OIL AND GAS LEASE

No. \_\_\_\_\_

THIS INDENTURE OF LEASE, entered into between the State of Montana, through its Board of Land Commissioners, hereinafter referred to as lessor, and the person, company, or corporation herein named, hereinafter referred to as lessee, pursuant to the provisions of Title 77, Chapter 3, Part 4, M.C.A., and all acts amendatory thereof and supplementary thereto, WITNESSETH:

**1. GRANTING CLAUSE**—The lessor, in consideration of the annual rentals herein stated, the receipt of which for the first year of this lease is hereby acknowledged, the royalties to be paid, and the covenants to be kept and performed by the lessee, hereinafter set forth, hereby grants, demises, leases and lets to the lessee, for the purpose of mining and operating for oil and gas, and of laying pipelines, building tanks, power stations, and other structures thereon necessary in order to produce, save, care for, dispose of and remove the oil and gas, all the lands herein described, as follows:

Date this lease takes effect:

Name of Lessee:

Address:

Land Located in:

County:

Description of land:

Total number of acres, more or less, \_\_\_\_\_, belonging to \_\_\_\_\_

Grant.

Annual rental, payable each year in advance:

**2. TERM AND HORIZONTAL SEGREGATION**—This lease is granted for a primary term of ten years and so long thereafter as oil and gas in paying quantities shall be produced from the land, subject to all of the terms and conditions herein set forth; provided, however, that:

- (a) The extended term of this lease shall apply only to those formations discovered, developed or drilled during the primary term of ten years, and the interest of the lessee in the premises herein described shall thereafter be limited to such formations.
- (b) If oil and gas in paying quantities is discovered in an offset well on a contiguous section during the extended term of this lease in any formation in the zone between the deepest formation to which the lessee drilled during the primary term of this lease and the deepest formation in which oil or gas has been discovered on the leased premises, this lease shall terminate as to said zone unless, within 60 days after the completion of such offset well, the lessee shall commence operations to test such a formation.

IT IS MUTUALLY UNDERSTOOD, AGREED AND COVENANTED BY AND BETWEEN THE PARTIES TO THIS LEASE AS FOLLOWS

**3. LEASE EXTENSION**—The Board of Land Commissioners may grant reasonable extensions of the primary term of this lease upon a showing that lessee, despite due care and diligence, is or has been directly or indirectly prevented from exploring, developing, or operating this lease or is threatened with substantial economic loss due to litigation regarding this lease or another lease in the immediate area held by the lessee, state compliance with the Montana Environmental Policy Act, or adverse conditions caused by natural occurrences.

**4. LAND DISPOSITIONS**—The lessor expressly reserves the right to sell, lease, or otherwise dispose of any interest or estate in the lands hereby leased, except the interest conveyed by this lease. However, lessor agrees that sales, leases, or other dispositions of any interest or estate in the lands hereby leased shall be subject to the terms of this lease, and shall not interfere with the lessee's possession or rights hereunder.

**5. RENTAL**—The lessee shall pay to the lessor an annual money rental in the amount hereinabove stated being not less than one dollar and fifty cents (\$1.50) for each acre of land held under this lease from year to year, provided, however, that the amount of such money rental so payable shall in no case be less than one hundred dollars (\$100.00) per annum. The first year's rental must be paid before the issuance of the lease. The rentals for each subsequent year of the lease shall be due and payable before the beginning of such subsequent lease year. Upon failure to make the rental payment, the lease terminates unless there is a well currently being drilled, a producing well, or a shut-in well approved by the Department of Natural Resources and Conservation, Trust Land Management Division (Department) on the lease. Rental paid for any year must be credited against any royalty that accrues during that year.

**6. ROYALTY ON OIL**—The lessee shall pay in money or in kind to the lessor at its option as hereinafter provided during the full term of this lease a royalty of 13%, free of all costs and deductions, on the average production of the oil from producing wells under this lease for each calendar month.

**7. ROYALTY ON GAS**—The lessee shall also pay in money or in kind to the lessor at its option as hereinafter provided during the full term of this lease, free of costs and deductions, a royalty on the gas produced from the wells under this lease whether the wells produce oil and gas or gas alone, of twelve and one-half percentum (12½%)



8. **SHUT IN GAS ROYALTY**—The royalty on gas, including casinghead gas and all gaseous substances not sold or used off the premises, must be at the rate of \$400 per lease each year or the amount of the annual rental provided in the lease, whichever is the greater, payable on or before the annual anniversary date of the lease. As long as the leased lands contain a well capable of production in paying quantities and the requisite payment is made, the lease must be considered as a producing lease under the terms herein.

9. **ROYALTIES BASED ON PRODUCTION**—All royalties shall be calculated upon the total amount produced and saved under this lease exclusive of oil and/or gas used for light, fuel or operating purposes in connection with the work on the lands under the lease

10. **FULL PRODUCTION REQUIRED**—All wells under this lease shall be so drilled, maintained and operated as to produce the maximum amount of oil and/or gas which can be secured without injury to wells and the aforesaid royalties shall be based and calculated on such full production of oil and/or gas.

11. **ROYALTY PAYMENT**—The lessee shall pay to the lessor in cash for such royalty oil and gas at the rate of the posted field price therefor existing on the day such oil or gas was run into any pipeline or storage tank to the credit of the lessee plus any bonus or other increase in price actually paid or agreed to be paid to the lessee.

12. **IN-KIND OIL OR GAS**—At the option of the lessor exercised not more frequently than once every thirty days by notice in writing the lessee shall deliver the State's royalty oil or gas free of cost or deductions into the pipeline to which the wells of the lessee may be connected or into any storage designated by the State and connected with such wells. The lessee shall not be required to furnish storage for the State's royalty oil for more than thirty (30) days following the date of production thereof when a market therefor is available.

13. **FAIR MARKET VALUE**—In all cases where there is no posted field price for oil or gas produced under this lease, the payments in cash for the royalties payable hereunder shall never be less than the fair market value thereof, for oil, at the wells where produced on the day it is run into the pipeline or storage tanks, and for gas, at the well where produced on the day produced. It is agreed that helium gas, carbon dioxide gas, and all other natural gases are included under the term "gas" as used in this lease.

14. **LIENS ON PRODUCTION**—The lessor shall have a first lien upon all oil or gas produced from the lands leased hereunder, to secure the payment of all unpaid royalty and other sums of money that may become due under the terms herein.

15. **POOLING AND UNITIZATION**—Upon receiving the written consent of the lessor, the lessee shall have the right to commit the lands hereby leased to a pooling, unit, cooperative or other plan of development or operation with other State lands, Federal lands, privately-owned lands or Indian lands. Such agreements shall not change the percentage of royalties to be paid to the state from the percentages as fixed herein. Oil or gas produced from any lands included in such an agreement which encompasses the lands hereby leased are considered to be produced from the lands hereby leased

16. **FARM LOAN ACQUISITIONS**—If the land under this lease is "mortgaged land" acquired by the State in connection with a mortgage given to the State as security for a loan and such mortgage land has been sold by the State subsequent to July 1, 1927, and prior to February 26, 1929, the lessee shall pay directly to the holder of such land under certificate of purchase or other contract, or deed from the State, a royalty of one percentum (1%) of the oil and gas produced from such land to be calculated on the same basis and in the same manner as the royalty to be paid to the State, but the said royalty of one percentum shall be deducted from the royalty to be paid to the State so that such one percentum royalty does not increase the total royalty to be paid under this lease, and if such mortgage land was sold by the State between March 15, 1935, and July 1, 1961, the lessee shall pay directly to the holder of such land under certificate of purchase or other contract or deed from the State, a royalty of six and one-fourth percentum (6¼%) of the oil and gas produced from such land to be calculated as hereinbefore specified.

17. **DELAY DRILLING PENALTY**—Unless this lease is surrendered, is terminated by lessee's failure to pay rentals when due, or is terminated by the Board of Land Commissioners because of the failure of the lessee to comply with the express and implied covenants of this lease, the Board of Land Commissioners may, in its discretion and as provided by law, cancel and terminate this lease upon the failure of the lessee (1) to commence within five (5) years of the effective date of this lease, drilling of at least one well upon the leased premises of such diameter and to such depth as may be necessary to make a reasonable test for oil and gas; or (2) pay in advance a delay drilling penalty of one dollar and twenty-five cents (\$1.25) per acre for the sixth year of the lease in addition to the annual rental; or (3) pay in advance a delay drilling penalty of two dollars and fifty cents (\$2.50) per acre per annum for the seventh through the tenth year of the lease in addition to the annual rental. The lessee shall notify the Department of the commencement of drilling of any well within five (5) days after the well is spudded in. The Board shall refund delay drilling penalties paid on a lease for any year in which the lessee commences drilling on that lease.

18. **DRY HOLE CLAUSE**—Following the termination of the fourth year of this lease, if the lessee drills a dry hole on the lease premises prior to discovery of oil or gas or if after discovery of oil or gas, production thereof in paying quantities ceases, the lease may be terminated by the Board unless the lessee (1) commences drilling of another well for oil and/or gas before the 7th year of this lease or second anniversary of the lease following completion of the well, whichever comes later, or (2) unless the lessee, on or before such anniversary date resumes payment of any delay drilling penalties imposed by the Board. For purposes of this lease "dry hole" is defined as a completed well which is not capable of producing oil and/or gas in paying quantities when completed

19. **DRILLING EXTENSION**—If at the expiration of the primary term hereof oil or gas is not being produced from the lease premises in paying quantities, but the owner of the lease is then engaged in drilling on the premises for oil and gas, then the lease continues in effect so long as such drilling operations are being diligently prosecuted. If oil or gas is recovered from any such well drilled or being drilled at or after the expiration of the primary term hereof, the lease continues in effect so long as oil or gas in paying quantities is being produced from the leased premises

20. **DUE DILIGENCE**—Upon completion of a commercially productive oil or gas well upon the leased premises, the lessee shall proceed with reasonable diligence to drill such additional wells to the depth of the formation found commercially productive, or to such depth as may be necessary to economically test, develop and operate the deposits discovered

21. **OFFSET PROTECTION**—The lessee shall commence promptly and diligently drill to completion all wells necessary on the lands under this lease in order to fairly offset commercially producing oil or gas wells on contiguous lands or pay a compensatory royalty

22. **WASTE PROHIBITED**—In conducting all explorations, mining or drilling operations under this lease, the lessee shall exercise all reasonable care and precautions in order to prevent waste of oil and gas. The lessee shall also at all times use all reasonable care and precautions to prevent the entrance of water to the oil or gas bearing strata to the destruction or injury thereof





23. **LOGS REQUIRED**—The lessee agrees to keep a correct log of each well drilled under this lease, showing the formations passed through, the depth at which such formation was reached, the thickness of each formation, the water-bearing formations and the character of water therein, the elevations to which the water rises, the number of feet of casing set in such well and where placed, its size and the total depth to which such well was drilled, and upon request, to file the log with the Department.

24. **PROGRESS REPORTS REQUIRED**—When called upon to do so, the lessee shall also file progress reports with the Department before the completion or abandonment of any well.

25. **PRODUCTION REPORTS AND PAYMENT OF ROYALTY**—The lessee further agrees on or before the last day of each month to make a report to the Department for operations covering the preceding calendar month, which report shall be in such form as the Department may prescribe and shall show the amount of oil or gas produced and saved during the preceding calendar month, the price obtained therefor, the total amount of all sales, whether any bonus or other increase in price was actually paid or agreed to be paid and such additional information as may be required. Such report shall be signed by the lessee or by some responsible person having knowledge of the facts contained therein. The report shall be accompanied by payment of the amount due the State as royalty for the month covered by the report where payment is required in money in place of oil or gas.

26. **COMPLETION REPORTS REQUIRED**—When the lessee is required by the rules of the Board of Oil and Gas Conservation to file a well completion report with that board, lessee shall file one copy of that report with the Department.

27. **LESSOR'S RIGHT TO INSPECT**—Representatives of the lessor shall at all times have the right to enter upon the granted premises and all parts thereof for the purpose of inspecting and examining the same, as well as supervising tests that they may deem necessary to ascertain the condition of the wells being drilled or about to be abandoned and gauging the production of producing wells. Representatives of the lessor shall also, at all reasonable hours, have free access to all books, accounts, records and papers of the lessee insofar as they contain information relating to the production obtained under this lease, the price obtained therefor, and the fair market value of the production. Lessor shall also have free access to agreements relating to production hereunder.

28. **SURFACE OWNER'S OR LESSEE'S RIGHTS**—The lessee hereunder agrees to provide the surface owner and surface lessee with a plan for location of all facilities and consult with the surface owner and surface lessee regarding a reasonable location of access roads. In all operations on the land hereby leased, lessee agrees to interfere as little as possible with the use of the premises for any other purpose to which the same may be devoted by other persons to whom the land may have been leased or sold by the State. The lessee shall not drill any well upon the lands hereby leased, within two hundred feet (200') of any residence or barn now or hereafter erected thereon without the consent of the owner of such building. The lessee hereby agrees to make satisfactory adjustment with the owner or lessee of the surface, including the State of Montana, for damages sustained by such surface owner, the lessee, or the State of Montana by reason of the lessee's entry upon, use and occupancy of, the surface of the land. If amicable determination of damages cannot be made between such surface owner, lessee, or the State of Montana and the lessee hereunder, then, upon the agreement of the surface owner or lessee to enter into arbitration, the damages to be paid to the surface owner or lessee shall be fixed by a board of arbitrators of three persons, to be appointed as follows: one by the State of Montana or the owner or lessee of the surface who is claiming damages, one by the lessee hereunder, and the third by the two arbitrators so appointed. The lessee hereby agrees to make prompt payment of the damages awarded by such board of arbitrators.

In any case where the owner of the surface claims title under a "C" patent issued by the State of Montana, and demands that the Board fix, allow and pay the owner the reasonable value of any right of way established by the lessee hereunder, the Department shall charge the cost of fixing the amount of damages to the lessee hereunder. The lessee hereunder shall pay the reasonable sum so fixed as damages to the Board, which will pay the surface owner.

29. **ASSIGNMENTS**—The lessee may assign this lease either in whole or as to any regular subdivision thereof, embracing not less than forty (40) acres, to any qualified assignee, providing that such assignment shall not be binding upon the State until it has been filed with the Department accompanied by the required fees. No assignment to two or more assignees will be approved until one of the assignees is designated to act as agent for the assignees.

30. **RELINQUISHMENTS**—The lessee shall have the right at the termination of any rental year, by giving at least thirty (30) days previous notice in writing to the Department, to surrender and relinquish any legal subdivisions of the land hereby leased and thereupon be discharged from any obligation not theretofore accrued as to the lands so surrendered and relinquished. When this lease terminates as to any portion less than the whole of the lands covered hereby, because of the lessee's failure to pay rental when due, lessee agrees to submit to the lessor, within thirty (30) days after such termination, a written surrender and relinquishment of those lands.

31. **CANCELLATION**—It is understood and agreed that the lessor hereby reserves the right to declare this lease forfeited and to cancel the same through the Board of Land Commissioners upon failure of the lessee to fully discharge all the obligations provided herein, after written notice from the Board and reasonable time fixed and allowed by it to the lessee for the performance of any undertaking or obligation specified in such notice concerning which the lessee is in default. The lessee, upon written application therefor, shall be granted a hearing on any notice or demand of the Board before the lease shall be declared forfeited or canceled. The provisions of this clause shall not in any way affect an automatic termination of this lease caused by lessee's failure to pay rental when due.

32. **SURRENDER POSSESSION**—Upon the termination of this lease for any cause the lessee shall surrender possession of the leased premises to the lessor subject to lessee's right to re-enter, hereby granted, at any time within six months after the date of such termination, for the purpose of removing all machinery, fixtures, improvements, buildings and equipment belonging to the lessee remaining upon the premises except casing in wells and other equipment or apparatus necessary for the preservation of any oil or gas well or wells. It is hereby agreed that any succeeding lessee, or in the event there be no succeeding lessee, the lessor, wishing to have such property left permanently upon the premises, shall pay the reasonable value thereof, in cash, to the lessee, but if the succeeding lessee or the lessor, acting through its Board of Land Commissioners, shall be unable to agree with the lessee upon the reasonable cash value of such casing, equipment and apparatus, then the succeeding lessee or the lessor herein, as the case may be, shall pay in cash to the lessee hereunder, such sum as may be fixed as a reasonable price by a board of three appraisers, one of whom shall be chosen by the succeeding lessee or the State of Montana as the case may be, one by the lessee hereunder, and the third by the two chosen, and whose appraisal shall be reported to the respective parties, in writing, and is final and conclusive. If the lessee or succeeding lessee refuses to appoint an appraiser within fifteen (15) days of a request to do so by the Department, the Department may appoint an appraiser for the lessee or succeeding lessee. Unless the Department gives written authorization, the lessee may not remain in possession or manage the land and property formerly covered by the lease. During the time the lessee remains in authorized possession, the lessee shall be entitled to retain the same share of the products of the lands as inured to the lessee during the term of this lease. Should the lessor herein or any succeeding lessee not desire any of the lessee's property permanently left upon the premises, as provided in this paragraph, the lessee shall properly plug all non-producing wells and remove all of his property from the lands with reasonable diligence. If any of the property of the lessee is not removed from the leased premises within six months of the termination date of the lease as herein provided the same shall be deemed forfeited to the State of Montana and shall become its property.





33. **COMPLIANCE WITH LAWS, RULES AND REGULATIONS**—The lessee agrees to comply with all applicable laws, rules and regulations in effect at the date of this lease, particularly the Rules Governing the Issuance of Oil and Gas Leases on State Lands of the State of Montana. The lessee agrees to comply with all applicable laws, rules and regulations which may, from time to time, be adopted and which do not impair the obligations of this contract and which do not deprive the lessee of an existing property right recognized by law.

34. **WARRANTY OF TITLE**—It is understood and agreed that this lease is issued only under such title as the State of Montana may now have or hereafter acquire, and that the lessor shall not be liable for any damages sustained by the lessee, nor shall the lessee be entitled to or claim any refund of rentals or royalties theretofore paid to the lessor in the event the lessor does not have the title to the oil and gas in the leased lands. If the lessor owns a lesser interest in the leased lands than the entire and undivided fee simple estate in underlying oil and gas for which rental and royalty is payable, then the rentals and royalties herein provided shall be paid the lessor only in the proportion which its interest bears to the whole and undivided fee simple estate in the oil and gas for which royalty is payable.

35. **LEGAL FEES**—In the event lessor shall institute and prevail in any action or suit for the enforcement of any provisions of this lease, lessee will pay to lessor a reasonable sum for costs incurred on account thereof.

36. **SPECIAL PROVISIONS:**

SEE EXHIBIT "A" (Tract-Specific Stipulations Attached)

37. **EXECUTING PARTIES BOUND**—All covenants and agreements herein set forth between the parties hereto shall extend to and bind their successors, heirs, executors and assigns.

IN WITNESS WHEREOF, the State of Montana and the lessee have caused this lease to be executed in duplicate and the Director of the Montana Department of Natural Resources and Conservation, pursuant to the authority granted him by the Board of Land Commissioners of the State of Montana, has hereunto set his hand and affixed the seal of the Board of Land Commissioners this \_\_\_\_

day of \_\_\_\_\_

\_\_\_\_\_  
Lessee

\_\_\_\_\_  
Director of the Department of Natural Resources  
and Conservation

\_\_\_\_\_  
Address







Appendix B2: Example Stipulations for Oil and Gas Leasing.

Stipulations marked with (\*) are placed on all leases.



### Notification

- A-1. Lessee shall notify and obtain approval from the Department's Trust Land Management Division (TLMD) prior to constructing well pads, roads, power lines, and related facilities that may require surface disturbance on the tract. Lessee shall comply with any mitigation measures stipulated in TLMD's approval.
- \*A-2. Prior to the drilling of any well, lessee shall send one copy of the well prognosis, including Form 22 "Application for Permit" to the Department's Trust Land Management Division (TLMD). After a well is drilled and completed, lessee shall send one copy of all logs run, Form 4A "Completion Report", and geologic report to TLMD. A copy of Form 2 "Sundry Notice and Report of Wells" or other appropriate Board of Oil and Gas Conservation form shall be sent to TLMD whenever any subsequent change in well status or operator, is intended or has occurred. Lessee shall also notify and obtain approval from the TLMD prior to plugging a well on the lease premises.

Issuance of this lease in no way commits the Land Board to approval of coal bed methane production on this lease. Any coal bed methane extraction wells would require subsequent review and approval by the board.

### Cultural

- \*B. The TLMD will complete an initial review for cultural resources and, where applicable, paleontological resources of the area intended for disturbance and may require a resources inventory. Based on the results of the inventory, the TLMD may restrict surface activity for the purpose of protecting significant resources located on the lease premises.

### Weeds

- \*C. The lessee shall be responsible for controlling any noxious weeds introduced by Lessee's activity on State-owned land and shall prevent or eradicate the spread of those noxious weeds onto land adjoining the lease premises.

### Royalty Calculation

- \*D. The definitions of "oil" and "gas" provided in 82-1-111, MCA, do not apply to this lease for royalty calculation purposes.

### CRP Land and Damages

- E. The lessee is responsible to pay for all damages, including penalties and charges assessed by the USDA-CFSA on CRP lands, as a result of drilling and production on the tract. All damages will be assessed by and paid directly to the TLMD.

### Sensitive Areas

- F-1. This lease includes areas that may be environmentally sensitive. Therefore, if the lessee intends to conduct any activities on the lease premises, the lessee shall submit to TLMD one copy of an Operating Plan or Amendment to an existing Operating Plan, describing in detail the proposed activities. No activities shall occur on the tract until the Operating Plan or Amendments have been approved in writing by the Director of the Department. TLMD shall review the Operating Plan or Amendment and notify the lessee if the Plan or Amendment is approved or disapproved.





After an opportunity for an informal hearing with the lessee, surface activity may be denied or restricted on all or portions of any tract if the Director determines in writing that the proposed surface activity will be detrimental to trust resources and therefore not in the best interests of the trust.

- F-2. This lease is located near the Rocky Mountain Front and includes areas that are environmentally sensitive. Therefore, except as otherwise provided below, the lessee shall not conduct any surface operations on the lease premises. If the lessee determines that surface operation on the lease premises may be required, the lessee shall submit a proposed Operating Plan or Amendment to an existing Operating Plan to the State Board of Land Commissioners describing in detail the proposed operations. No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board. In determining whether to approve the proposed Operating Plan or Amendment, the following provisions shall apply:

1) If the lessee proposes an activity that does not entail any significant surface disturbance, the Board may approve the same after completion of the appropriate environmental review in accordance with the Montana Environmental Policy Act (MEPA) and an opportunity for public comment on the proposed activity has been provided.

2) Before the Board approves any proposed activity on the lease premises that entails a significant surface disturbance, an environmental impact statement (EIS) shall be completed in accordance with MEPA. The EIS shall analyze the potential impacts of alternative and future potential levels of oil and gas development and extraction on an ecosystem scale as the ecosystem is defined by the "Limits of Acceptable Change--Bob Marshall Wilderness Complex" adopted by the Montana Department of Fish, Wildlife & Parks in December 1991. The analysis shall consider all relevant information, which may include, but is not limited to, existing environmental reviews and management plans. Public involvement in the environmental review process shall be actively solicited by the preparer of the environmental review document and shall include, at minimum, adequately noticed public meetings in at least three communities including Great Falls and Helena.

3) The proposed surface activity shall adhere to the "Interagency Rocky Mountain Front, Wildlife Monitoring/Evaluation Program, Management Guidelines for Selected Species" adopted by the Montana Department of Fish, Wildlife & Parks in September 1987, or any successor guidelines thereto.

4) The Board may refuse to approve any proposed surface operations if it determines that they do not constitute the best use of trust resources or are not in the best interest of the State of Montana.

- F-3. This lease is located within or adjacent to the Sleeping Giant and Sheep Creek Wilderness Study Area, the Beartooth State Wildlife Management Area, and/or the Gates of the Mountains Wilderness and includes areas that are environmentally sensitive. Therefore, except as otherwise provided below, the lessee shall not conduct any surface operations on the lease premises. If the lessee determines that surface operation on the lease premises may be required, the lessee shall submit a proposed Operating Plan or Amendment to an existing Operating Plan to the State Board of Land Commissioners describing in detail the proposed operations. No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board. In determining whether to approve the proposed Operating Plan or Amendment, the following provisions shall apply:



1) If the lessee proposes an activity that does not entail any significant surface disturbance, the Board may approve the same after completion of the appropriate environmental review in accordance with the Montana Environmental Policy Act (MEPA) and an opportunity for public comment on the proposed activity has been provided.

2) Before the Board approves any proposed activity on the lease premises that entails a significant surface disturbance, an environmental impact statement (EIS) shall be completed in accordance with MEPA. The EIS shall analyze the potential impacts of alternative and future potential levels of oil and gas development and extraction on an ecosystem scale. The analysis shall consider all relevant information, which may include, but is not limited to, existing environmental reviews and management plans. Public involvement in the environmental review process shall be actively solicited by the preparer of the environmental review document and shall include, at minimum, adequately noticed public meetings in at least two communities including Great Falls and Helena.

3) The Board may refuse to approve any proposed surface operations if it determines that they do not constitute the best use of trust resources or are not in the best interest of the State of Montana.

#### Navigable Rivers

G. This tract contains navigable river beds. No surface occupancy is allowed within the bed of the navigable river, abandoned channels, or on islands and accretions. In addition, upon completion of a successful well, where river title is disputed, the lessee will file an interpleader action under Rule 22, M.R.Civ.P. in the Montana District Court in which the leased lands are located for all acreage within the lease in which the title is disputed. The lessee shall name all potential royalty claimants as defendants.

#### Surface not State Owned

H. Lessee must contact the owner of the surface in writing at least 30 days prior to any surface activity. A copy of the correspondence shall be sent to TLMD.

#### No Surface Occupancy

- I. No surface occupancy shall be allowed on this tract unless otherwise approved in writing by the Director of DNRC.
- J. No surface occupancy shall be allowed on any portion of this tract which is indicated as right-of-way on the official highway plans on file at the Department of Transportation in Helena, Montana without prior written approval from TLMD.

#### Existing Production Restrictions

K. Lessee will need to make settlement for the value of the equipment with previous lessee. A copy of this settlement will be sent to the TLMD for their records.



### Existing Facilities

- L-1. This tract has (an) existing well(s) and related facilities. The lessee has 45 days from the effective date of this lease to determine whether or not to assume responsibility from the former lessee for the well and any existing facilities. The lessee may not enter the well until a change of operator has been filed with, and approved by, the Board of Oil and Gas Conservation.
- L-2. This tract has an existing well and related facilities. The lessee has 45 days from the effective date of this lease to determine whether or not to assume responsibility from the former lessee for the well and any existing facilities. The lessee may not enter the well until a change of operator has been filed with, and approved by, the Board of Oil and Gas Conservation. This well must be returned to commercial production or plugged and the wellsite reclaimed within 18 months from the effective date of this lease.

### Drainage Occurring

- M. It is the opinion of the TLMD that drainage is occurring on the land described in this lease and that if a well is not drilled within two years after this lease is issued the department will consider cancellation of the lease for failure to drill an offset well.

### Forested Tracts - Timber

- N. Prior to the cutting or removal of timber on these tracts for exploration or development related activities, the lessee shall acquire the approval of the appropriate TLMD area office.

### Wildlife Restrictions

- O. To protect wildlife during periods important to their survival, surface occupancy or other activity shall be restricted from March 15 through July 15 of each year unless otherwise authorized in writing by the TLMD.
- P-1. Potential wildlife conflicts have been identified for this tract. The TLMD will contact the Montana Department of Fish, Wildlife, and Parks office in the area for advice on alleviating any possible conflicts caused by lessee's proposed activities. Additional mitigation measures may be required.
- P-2. Potential wildlife conflicts have been identified for this tract. The TLMD will contact the U.S. Fish and Wildlife Service office in the area for advice on alleviating any possible conflicts caused by lessee's proposed activities. Additional mitigation measures may be required.
- Q. Wildlife species of concern have been identified on or near this tract. A survey in areas of proposed activity may be required prior to disturbance. Identified species will be avoided, unless otherwise authorized by the TLMD. Additional mitigation measures may also be required.

### Miscellaneous Restrictions

- R. Any activity within 1/8 mile of the river or lake/reservoir on or adjacent to this tract must be approved in writing by the TLMD prior to commencement. No surface occupancy is allowed within the bed of the river, abandoned channels, the bed of the lake/reservoir, or on islands and accretions associated with the river or lake/reservoir.





- S. No activity shall be allowed within 100 feet of any perennial or seasonal stream, pond, lake, prairie pothole, wetland, spring, reservoir, well, aqueduct, irrigation ditch, canal, or related facilities without prior approval of the TLMD.
- T. Due to unstable soil conditions on this tract and/or topography that is rough and/or steep, surface use may be restricted or denied. Seismic activity may be restricted to poltershots.
- U. Due to existing surface uses (such as center pivots, wheel lines, etc.) development on this tract may be restricted.
- V. Plant species of concern have been identified on or near this tract. A vegetation survey in areas of proposed activity will be required prior to disturbance. Identified rare plant species will be avoided, unless otherwise authorized by the TLMD.
- W. A critical weed problem exists on this tract. Additional mitigation measures will be required to prevent further spread of noxious weeds. The department may require such measures as power washing of vehicles, car pooling, timing restrictions for seismic, etc. to facilitate this prevention.
- X. This tract contains biological weed-control sites which must be avoided unless otherwise authorized by TLMD.
- Y. No surface occupancy of the cemetery site is permitted without written approval of TLMD.
- Z. Wooded areas on this tract will be avoided unless otherwise authorized by the TLMD.
- AA. No surface occupancy of the school area and/or related facilities is permitted without written approval of TLMD.
- BB. Lease contains a well certified for domestic use by the Board of Oil and Gas Commission (BOGC). Therefore, BOGC does not consider this well to be subject to well spacing regulations.
- CC. This lease is issued subject to a prior existing State of Montana bentonite lease. Lessee's right to search, develop, and produce oil and gas may be restricted by such prior existing lease rights.
- DD. A gas storage unit exists on this tract. TLMD will solicit comments from gas storage operator (if other than lessee) if drilling through the gas storage reservoir is proposed, and TLMD may include reasonable protective stipulations in approving Lessee's operating plan. As part of its regulatory review, the BOGC may also require protective measures to ensure no impact to the gas storage reservoir.
- EE. No surface occupancy of radio tower sites or related facilities is permitted without written approval of TLMD.









APPENDIX C: Agency Comments Received Before Deadline



DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION  
NORTHEASTERN LAND OFFICE



(406) 228-2430 Telephone  
(406) 228-2439 FAX  
co6593@state.mt.us  
Hrichards@state.mt.us

STATE OF MONTANA

RECEIVED

APR 17 2000

D.N.R.C.

GLASGOW UNIT OFFICE  
PO BOX 1007  
224 6 STREET SOUTH  
GLASGOW, MONTANA 59230-1007

April 14, 2000

MEMORANDUM

TO: Teresa Kinley, Hydro-Geologist, Minerals Management Bureau, Helena Office

FROM: Randy Dirkson, Land Use Specialist, Glasgow Unit Office

RE: Montana Oil & Gas Lease Sale, June 7, 2000

Attached with this memorandum are the comments for the State land tracts that are administered by the NELO, Glasgow Unit Office for the upcoming oil and gas lease sale. If you should have questions, please contact the Glasgow Unit Office.

C: NELO



\* The cultural resources stipulation is added to all tracts on each MT oil and gas lease sale.

5007 Archer 35.N 53.E 2 W2SW4, SE4SW4, SW4SE4 160.00  
Plentywood SW

This tract has upland bird and wildlife habitat resources. Tract is native rangeland and dryland agriculture.

500B Archer 35.N 53.E 3 SE4NE4, SW4SE4, E2SE4 160.00

\* This tract has a developed spring for livestock water located on the SW4SE4 and teepee rings located on hilltops. The developed spring and the teepee ring sites would need to be avoided by seismic operations and other associated oil and gas activities. Tract has upland bird and wildlife habitat resources. Tract is native rangeland and dryland agriculture. *The stream, pond, reservoir, etc. buffer stipulation will be added to this tract's lease.*  
5009 Archer 35.N 53.E 10 NW4NE4 40.00

This tract has upland bird and wildlife habitat resources. Tract is native rangeland.

5010 Archer 35.N 53.E 11 NW4NW4 40.00  
Plentywood SW

\* This tract has teepee ring sites located on the silty range site. The teepee ring sites would need to be avoided by seismic operations and other associated oil and gas activities. Tract has upland bird and wildlife habitat resources. Tract is native rangeland.  
*The steep topography and/or unstable soils stipulation will also be added to this tract's lease.*

5011 Archer 36.N 53.E 16 ALL \* 640.00  
STATE DOES NOT OWN THE SURFACE ON THE E2.

This tract is all dryland agriculture and has no wildlife habitat resources.

*Sheridan County - On March 5, 2002 Oil & Gas Lease Sale*

5012 Plentywood SW 36.N 53.E 36 ALL \* 640.00  
Kisler Butte  
STATE DOES NOT OWN THE SURFACE ON THE NE4.

This tract has an ephemeral stream identified as Plentywood Creek. The Plentywood Creek and associated areas would need to be avoided by seismic operations and other associated oil and gas activities. This tract has upland bird and wildlife habitat resources. This tract is native rangeland, conservation reserve program acreage and dryland agriculture. *The stream, etc. buffer stipulation and the CRP stipulation will be added to this tract's lease.*

TETON (CLO-C, FWP-4)

+5100 Castle Reef 23.N 8.W 16 ALL 640.00  
Ear Mountain

+5101 Castle Reef 23.N 8.W 17 N2NE4, SE4NE4 120.00  
Ear Mountain

TOOLE (CLO-C, FWP-4)

5034 Grassy Butte 35.N 3.E 16 ALL 640.00

5054 Shelby 33.N 1.W 16 ALL, BELOW THE BASE OF THE 640.00  
Antelope Coulee SW RIERDON FORMATION

5055 Shelby 33.N 2.W 16 ALL, BELOW THE BASE OF THE 640.00  
Viriden SWIFT FORMATION

PAGE 8

APP#	TOPO	TWP	RGE	SEC	DESCRIPTION	ACRES
5057	Antelope Coulee NW	34.N	1.W	16	E2, BELOW THE BASE OF THE MADISON FORMATION STATE DOES NOT OWN THE	320.00





DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION



TRUST LAND MANAGEMENT DIVISION

JUDY H. MARTZ, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074  
TELEFAX NUMBER (406) 444-2684

PO BOX 201601  
HELENA, MONTANA 59620-1601

December 27, 2001

MEMORANDUM

TO: Patrick Rennie, Archaeologist, Ag. & Grazing Management Bureau

FROM: Teresa Kinley, Hydrologist/Geologist, Minerals Management Bureau

*T. Kinley*

RE: March 5, 2002 State of Montana Oil and Gas Lease Sale

Please review the attached list of tracts for the upcoming oil and gas lease sale for cultural areas of concern. Prior to leasing, the Department complete an environmental assessment of the properties. One of the purposes of this assessment is to mitigate potential cultural concerns that could be affected by oil and gas exploration by adding stipulations to the leases. As usual the standard cultural stipulation will be placed on all tracts.

Let me know if there are any concerns which may require other stipulations on the leases. If you have any questions, please ask me or Monte Mason. Please return your comments by January 23, 2002.

Thank you for your help.

Attachment

*Teresa:*

*looks ok. Just add standard archaeological stipulation to lease agreements.*

*Patrick*

*The cultural resources /paleontological resources stipulation will be utilized on the leases For all oil and gas lease sale tractson the March 5, 2002 sale,*



## Kinley, Teresa

---

From: Gary Olson [grolson@mcn.net]  
Sent: Friday, December 28, 2001 5:29 PM  
To: Kinley, Teresa  
Cc: Graham Taylor  
Subject: Re: MT Oil and Gas Lease Sale, March 5, 2002

Teresa: I have reviewed the tracts in Glacier County (5001, 5002, 5003) and have no specific wildlife comments. Thanks for the opportunity to comment.

Gary Olson

*Comment noted.*

----- Original Message -----

From: "Kinley, Teresa" <tkinley@state.mt.us>  
To: "Olson, Gary" <grolson@mcn.net>  
Sent: Friday, December 28, 2001 3:55 PM  
Subject: MT Oil and Gas Lease Sale, March 5, 2002

> I am sending the tract list and my request for comments letter as attached  
> files in Word 2000 format. Tract list is a Word file, FIELD302.doc and it  
> is in plain text, Courier New font, 8 or 10 point size. I have also  
> attached an additional Word 2000 file which includes a general location  
map  
> for informational purposes.  
>  
> As noted in the attached letter, the deadline for comments is January 23,  
> 2002. You do not need to include tracts outside your area in the comments  
> that you return. Comments can be returned by postal mail or electronic  
> mail, however electronic mail is preferred. Please contact me at (406)  
> 444-2074 if you have questions. Thank you for your assistance.  
>  
>  
> <<FIELD302.doc>> <<MARMAP02.doc>> <<FW4OLSN.doc>>  
>





P.O. Box 201800 • 1515 East Sixth Avenue • Helena, MT 59620-1800 • fax 406.444.0581 • tel 406.444.3009 • <http://nris.state.mt.us>

January 2, 2002

Teresa Kinley  
MT DNRC, Trust Land Management Division  
1625 Eleventh Ave.  
PO Box 201601  
Helena, Montana 59620-1601

Dear Teresa,

I am writing in response to your request for information on species of concern in the vicinity of the proposed Oil & Gas Lease Sale Tracts. We checked our databases for information in these areas. We have enclosed the species of concern reports, organized by township, range and section, for each area and 1 map for each area where these species were found. The results are summarized as follows:

<u>COUNTY</u>	<u>APP#</u>	<u>LOCATION</u>	<u>NUMBER OF OCCURRENCES FOUND</u>
Carbon	5054	T04S, R21E, Section 36	1
Carbon	5055	T05S, R22E, Section 16	2
Daniels	5011-5013	T34N, R45E, Section 1 ; and, T34N, R46E, Sections 6 & 7	0
Dawson	5007-5008	T14N, R55E, Sections 5 & 8	6
Fergus	5018	T13N, R20E, Section 16	0
Glacier	5001-5003	T36N, R05W, Sections 20, 27 & 29	0
Hill	5005	T36N, R13E, Section 36	0
Lewis & Clark	5056	T15N, R04W, Section 32	1
Lewis & Clark	5057-5075	T19N, R07-08W	8
McCone	5006	T22N, R47E, Section 20	0
Petroleum	5014-5017	T15N, R25E	1
Richland	5009	T24N, R55E, Section 16	0
Richland	5010	T25N, R56E, Section 36	0
Sheridan	5004	T36N, R53E, Section 36	0
Valley	5019-5053	T32-33N, R38-39E ; and, T31N, R40E	11

Electronic access to the Montana Natural Heritage Program is available at URL  
<http://nris.state.mt.us/mtnhp/>

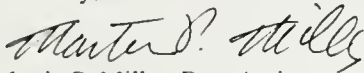


Please keep in mind the following when using and interpreting the enclosed information and maps:

- (1) These materials are the result of a search of our database for species of concern and communities that comprise high-quality wetlands, that occur in an area defined by the requested township and range (and section, if available) with an additional one-mile buffer surrounding the requested area. This is done to provide you with a more inclusive set of records and to capture records that may be immediately adjacent to the requested area.
- (2) In the report, the term "precision" reflects the quality of the location information. S (second) precision is used when the location of the collection/observation is known within a three-second radius (approximately 10 acres); M (minute) precision is used when the location of the collection /observation is known within a one minute radius (approximately 1.5 miles); and G (general) precision is used when the location of the record/collection is known within a 5 mile radius or to a place name only. Some species locations outside the selection area have imprecisely-known locations and may actually occur within the selection area.
- (3) Location information for animals represents occupied breeding habitat; location information for plants represents known occurrences of plant species, and, like animals, has an implied range that may not be fully conveyed by the mapped data. Most locations are depicted as points, but some, especially those that cover large area, are depicted as polygons on the map. The approximate boundaries of these polygons are color-coded to help differentiate vertebrate classes and plants.
- (4) This report may include sensitive data, and is not intended for general distribution, publication or for use outside of your agency. In particular, public release of specific location information may jeopardize the welfare of threatened, endangered, or sensitive species or communities.
- (5) The accompanying map(s) display management status, which may differ from ownership. Also, this report may include data from privately owned lands, and approval by the landowner is advisable if specific location information is considered for distribution. Features shown on this map do not imply public access to any lands.
- (6) Additional biological data for the search area(s) may be available from other sources. We suggest you contact the U.S. Fish and Wildlife Service for any additional information on threatened and endangered species (406-449-5225). Also, significant gaps exist in the Heritage Program's fisheries data, and we suggest you contact the Montana Rivers Information System for information related to your area of interest (406-444-3345).
- (7) The results of a data search by the Montana Natural Heritage Program reflect the current status of our data collection efforts. These results are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys, which may be required for environmental assessments.

I hope the enclosed information is helpful to you. Please feel free to contact me at (406)-444-2817 or via my e-mail address, below, should you have any questions or require additional information.

Sincerely,



Martin P. Miller, Data Assistant  
Montana Natural Heritage Program  
(martinm@state.mt.us)





# Montana Natural Heritage Program

P.O. Box 201800  
1515 East Sixth Avenue  
Helena, Montana 59620-1800  
(406) 444-3009  
<http://nris.state.mt.us>

## Explanation of Element Occurrence Reports

Since 1985, the Montana Natural Heritage Program (MTNHP) has been compiling and maintaining an inventory of the elements of biological diversity in Montana. This inventory includes plant species, animal species, plant communities, and other biological features that are rare, endemic, disjunct, threatened or endangered throughout their range in Montana, vulnerable to extirpation from Montana, or in need of further research.

Individual species, communities, or biological features are referred to as "elements." An "element occurrence" generally falls in one of the following categories:

Plants: A documented location of a plant population. In some instances, adjacent, spatially separated clusters are considered subpopulations and are grouped as one occurrence (e.g., the subpopulations occur in ecologically similar habitats, and are within approximately one air mile of one another).

Animals with limited mobility (most invertebrates, amphibians, reptiles, small mammals, most fish): The location of a specimen collection or of a verified sighting; assumed to represent a breeding population. Additional collections or sightings are often appended to the original record.

Mobile or migratory animals (most birds and larger mammals, some fish): Breeding areas (including nesting territories, dens and leks) and significant aggregation sites (winter feeding areas, staging grounds, or hibernacula).

Communities: All contiguous, high-quality habitat as defined by physical and biological features.

Other: Significant biological features not included in the above categories, such as bird rookeries, peatlands, or state champion trees.



The quantity and quality of data contained in MTNHP reports is dependent on the research and observations of the many individuals and organizations who contribute information to the program.

Please keep in mind that the absence of information for an area does not mean the absence of significant biological features. Reports produced by the Montana Natural Heritage Program summarize information known to the program at the time of a request. These reports are not intended as a final statement on the elements or areas being considered, nor are they a substitute for on-site surveys which may be required for environmental assessments.

As a user of MTNHP, your contributions of data are essential to maintaining the accuracy of our data bases. New or updated location information for all species of special concern is always welcome.

We encourage you to visit our website at <http://nris.state.mt.us/mtnhp/>. On-line tools include species lists, an electronic version of *Montana Bird Distribution*, and search capabilities by county, management unit, or USGS 7.5' quadrangle. Also available is the *Montana Rare Plant Field Guide*, which contains photos, high-quality diagnostic illustrations, and supporting information for over 300 rare plant species in Montana.



Certain codes and abbreviations are used in element occurrence reports. Although many of these are very straightforward, the following explanations should answer most questions.

## Global Rank and State Rank

Taxa are evaluated and ranked by MTNHP on the basis of their global (range-wide) status, and their state-wide status according to a standardized procedure.

For each level of distribution, global and state, species are assigned a numeric rank ranging from 1 (critically imperiled) to 5 (demonstrably secure). For example, Clustered lady's-slipper (*Cypripedium fasciculatum*) is ranked G4 S2. That is, globally the species is apparently secure, while in Montana it is imperiled because of rarity, or because of other factors making it demonstrably vulnerable to extirpation.

### Rank    Definition

- 1 Critically imperiled because of extreme rarity, or because of some factor of its biology making it especially vulnerable to extirpation.
  - 2 Imperiled because of rarity, or because of other factors demonstrably making it very vulnerable to extinction throughout its range.
  - 3 Vulnerable because of rarity, or found in a restricted range even though it may be abundant at some of its locations.
  - 4 Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.
  - 5 Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery.
- U Possibly in peril but status uncertain; more information needed.
- H Historical, known only from records over 50 years ago; may be rediscovered.
- X Believed to be extinct; historical records only.

### Other Global and State Rank codes:

- T Rank for a subspecies or variety; appended to the global rank for the full species, e.g., G4T3.
- Q Taxonomic questions or problems involved; more information needed.
- ? Inexact or uncertain.
- Z Ranking not applicable.
- A Accidental in the state. Includes species (usually birds or butterflies) recorded very infrequently, hundreds or thousands of miles outside their usual range.
- B A state rank modifier indicating breeding status for a migratory species. Example: S1B, SZN = breeding occurrences for the species are ranked S1 (critically imperiled) in the state; non-breeding occurrences are not ranked in the state.
- # A modifier to SX or SH: the species has been reintroduced but the population is not yet established.

## U. S. Fish And Wildlife Service Endangered Species Act Status

Abbreviations indicate the categories defined in the U.S. Fish and Wildlife Service Notice of Review and indicate the status of a taxon under the federal Endangered Species Act of 1973 (16 U.S.C.A. §1531-1543 (Supp. 1996)).

Note: the categories C2, 3B and 3C are no longer maintained by the U.S. Fish and Wildlife Service (61 FR 7596, Feb. 28, 1996).

Current categories are:

- LE listed endangered
- LT listed threatened
- PE proposed endangered
- PT proposed threatened
- C candidate: Substantial information exists in U.S. Fish and Wildlife files on biological vulnerability to support



proposals to list as threatened or endangered.

- NL not listed or no designation (see below)  
 XN non-essential experimental population

A species can have more than one federal designation if the species' status varies within its range. In these instances, the Montana designation is listed first. Example: LEIT = species is listed as endangered in Montana; elsewhere in its range it is listed as threatened.

### U.S. Forest Service Status

The status of species on Forest Service lands as defined by the U.S. Forest Service manual (2670.22). These taxa are listed as such by the Regional Forester (Northern Region) on National Forests in Montana. Species are listed as:

- T/E/P listed as Threatened (LT) or Endangered (LE) under the Endangered Species Act or proposed for listing (P), and known or suspected to occur on national forests.
- S sensitive species, subspecies or variety, for which the Regional Forester has determined there is a concern for population viability rangewide or in the region.

### Bureau of Land Management Status

The status of species on Bureau of Land Management land is defined by the BLM 6840 manual and designated by the Montana State Office of the BLM in 1996:

- S sensitive species: proven to be imperiled in at least part of its range and documented to occur on BLM lands.
- W watch species: either known to be imperiled and suspected to occur on BLM lands, suspected to be imperiled and documented on BLM lands, or needing further study for other reasons.

### Other terms that may be used in this report

USGS quadrangle – Name of the 7.5-minute USGS topographic map(s) where the population is located.

Township, range, section, TRS comments – legal description of the centroid of the population and, if known, additional townships or sections. TRS locators may be based on unsurveyed townships; in such cases, the locators are derived from U. S. Forest Service visitor maps or from BLM surface management status maps. This is done for convenience in describing species locations; the information does not necessarily indicate legal boundaries.

Precision – the level of location accuracy of the record.

S = accuracy of location is within an area of approximately 10 acres

M = accuracy of location is within a radius of approximately 1.5 miles

G = location is a place-name only, or within a radius of approximately 5 square miles.

Last observation: date the element was last observed extant at the site (not necessarily the date the site was last visited).

Land Owner/manager – the ownership or management of the land on which the element occurs. Areas are generally listed from smallest to largest. In most instances, this information is derived from U.S. Forest Service visitor maps or from BLM surface management status maps.

Please remember that this report is a summary of information. Additional data are available on most sites and species

If you have questions or need further assistance, please contact us either by phone at (406/444-0914), e-mail (mtnhp@nris.state.mt.us) or at the mailing address shown on the first page.





28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T04S, R21E, Section 36, Carbon County  
APP# 5054

Scientific Name: LAMPROPELTIS TRIANGULUM

Common Name: MILK SNAKE

Global Rank: G5

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type:

Species occurrence data:

Last observation: 1951-08-11

Size (acres):

General site description:

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

SPECIMEN COLLECTED NEAR JOLIET; HEAD MISSING. POD POINT: 71.27.6.

Information source:

ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 210800,  
HELENA, MT 59620-1800. 406/444-3009.

Survey site name: JOLIET

County: CARBON

USGS quadrangle: FROMBERG

Precision: G

Elevation (ft):

Location:

JOLIET.

Township\Range:

Section:

TRS comments:

004S022E

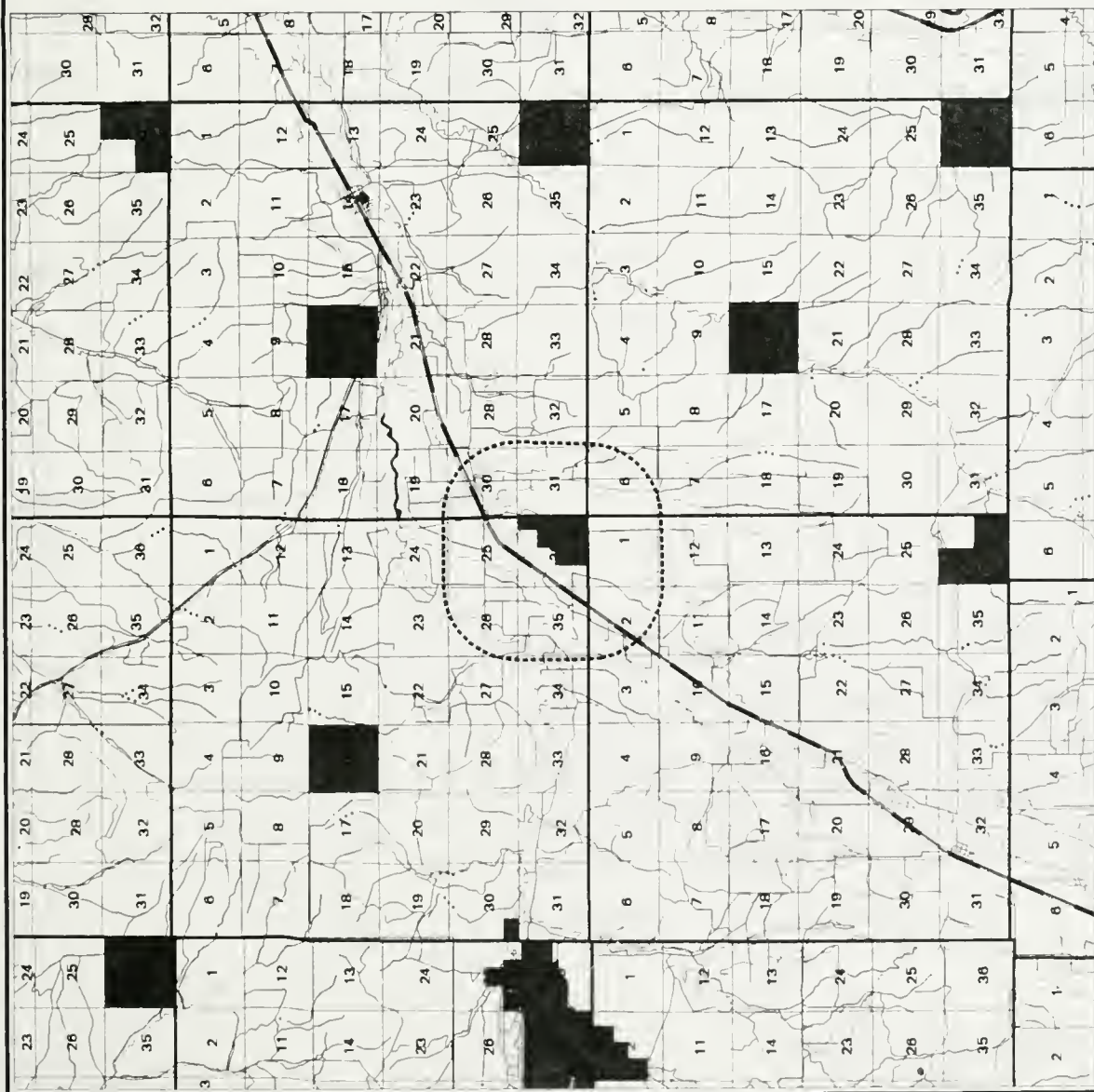
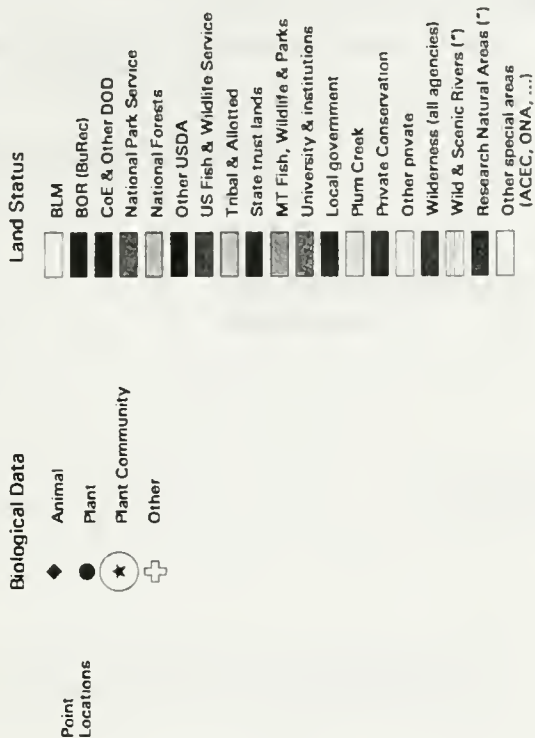
14

Application # 5054 T4S R21E Sec. 36 Lots 1-4,  
~4 1/2 to 5 1/2 miles away. The last observation  
was 1951. More Food sources and cover are likely at Joliet,  
along Rock Creek than on this tract. Dissimilar habitat. - Distance  
Rock Creek does not cut this portion - No impact -  
of the tract.



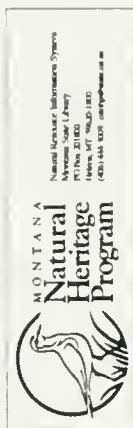


# Montana Species of Concern T04S, R21E, Sec. 36, Carbon County APP# 5054



- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.
- Not all legend items may occur on map.
- Features shown on this map do not imply public access to any lands.
- Refer to accompanying documentation for full explanation of map features.

Scale of Miles 0 1 2 3 4 5 6 7



Request nhp6666a  
December 28, 2001



Scientific Name: LAMPROPELTIS TRIANGULUM

Common Name: MILK SNAKE

Global Rank: G5

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type:

Species occurrence data:

Last observation: 1951-08-11

Size (acres):

General site description:

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

SPECIMEN COLLECTED NEAR JOLIET; HEAD MISSING. POD POINT: 71.27.6.

Information source:

ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 210800,  
HELENA, MT 59620-1800. 406/444-3009.

Survey site name: JOLIET

County: CARBON

USGS quadrangle: FROMBERG

Precision: G

Elevation (ft):

Location:

JOLIET.

Township\Range:

Section:

TRS comments:

004S022E

14

*A pplication # 5055 T5S, R22E Sec. 16 is  
~5 to 6 miles From this site. The last observation at  
this site is noted above as 1951. More Food sources  
and cover are likely (if it were still around) at Joliet. Clumps of  
trees are not present; Rock Creek does not cut this tract.*

*Dissimilar habitat - - No impact -  
Distance*



28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T05S, R22E, Section 16, Carbon County  
APP# 5055

Scientific Name: HEMICARPHA DRUMMONDII

Common Name: DRUMMOND'S HEMICARPHA

Global Rank: G4G5

Forest Service status:

State Rank: SH

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type:

Species occurrence data:

NOT ABUNDANT; 3-6 INCHES TALL.

Last observation: 1941-08-03

Size (acres): 0

General site description:

MOIST, SANDY SOIL.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

NONE.

Information source:

BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Survey site name: FROMBERG

County: CARBON

USGS quadrangle: FROMBERG

Precision: G

Elevation (ft): 3600

Location:

FROMBERG.

Township\Range:

Section:

TRS comments:

004S023E

29

Application # 5055 T5S, R22E, Sec. 16 is ~4 1/2 to 5 1/2 miles from this site. The last observation of this plant in T4S R23E Sec 29 was in 1941. Section 16 has previously been plowed & cropped. Distance, <sup>only</sup> historically known, previously plowed.  
- No impact -





# Montana Species of Concern T05S, R22E, Sec. 16, Carbon County APP# 5055

**Biological Data**

◆ Animal  
● Plant  
★ Plant Community  
⊕ Other

**Land Status**

BLM  
BOR (BuRec)  
CoE & Other DOD  
National Park Service  
National Forests  
Other USDA  
US Fish & Wildlife Service  
Tribal & Allotted  
State trust lands  
MT Fish, Wildlife & Parks  
University & institutions  
Local government  
Plum Creek  
Private Conservation  
Other private  
Wilderness (all agencies)  
Wild & Scenic Rivers (\*)  
Research Natural Areas (\*)  
Other special areas  
(ACEC, ONA, ...)

----- Search Area

Scale of Miles 0 1 2 3 4 5 6 7



Montana Natural Heritage Program  
Natural Resource Information Systems  
PO Box 201400  
Helena, MT 59614-0400  
(406) 444-5025 mnhp@state.mt.us

Request nhp6666aa  
December 28, 2001

- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.

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28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T14N, R55E, Sections 5 & 8, Dawson County  
APP# 5007-5008

Scientific Name: TRIONYX SPINIFERUS

Common Name: SPINY SOFTSHELL

Global Rank: G5

Forest Service status:

State Rank: S3

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

SINCE 1970: 4 REPORTS ON THE YELLOWSTONE, 5 REPORTS ON THE TONGUE AND ONE ON THE POWDER.  
THE BOUNDARIES FOR THIS OCCURRENCE ENCOMPASS ALL REPORTED OBSERVATIONS IN THE  
YELLOWSTONE RIVER DRAINAGE. SPECIFIC OBSERVATION DATA AVAILABLE FROM MTNHP.

Last observation: 1997

Size (acres): 0

General site description:

LARGE RIVERS AND THEIR SANDY BANKS (UP TO 50 METERS FROM WATER - USED FOR NESTING).

Land owner/manager:

BLM: MILES CITY FIELD OFFICE; BLM: BILLINGS FIELD OFFICE; BLM: MILES CITY FIELD OFFICE;  
PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED

Comments:

NOTE 3 HISTORIC REPORTS FROM THE BIG HORN RIVER DRAINAGE, AROUND CROW AGENCY.

Information source:

ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 210800,  
HELENA, MT 59620-1800. 406/444-3009.

Survey site name: YELLOWSTONE RIVER DRAINAGE

County: ROSEBUD; DAWSON; PRAIRIE; CUSTER; BIG HORN; TREASURE; YELLOWSTONE

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft): 1980

Location:

THE YELLOWSTONE RIVER BETWEEN BILLINGS AND INTAKE, PLUS THE TONGUE RIVER AND THE FIRST  
FEW MILES OF THE POWDER RIVER.

Township\Range:

Section:

TRS comments:

006N039E

17

CENTRUM - MANY ADDITIONAL TOWNSHIPS

*The no-surface occupancy of navigable riverbeds and related  
acreage stipulation will be utilized on the leases for application  
numbers 5007 T14N R55E Section 5 - Yellowstone Riverbed and  
related acreage.  
and # 5008 T14N R55E Section 8 - Yellowstone Riverbed and  
related acreage.*



28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T14N, R55E, Sections 5 & 8, Dawson County  
APP# 5007-5008

Scientific Name: STERNA ANTILLARUM ATHALASSOS

Common Name: INTERIOR LEAST TERN

Global Rank: G4T2Q

Forest Service status:

State Rank: S1B,SZN

USFWS Endangered Species Act Status: LE

BLM Status: SPECIAL STATUS

Occurrence Type: OCCUPIED BREEDING HABITAT

Species occurrence data:

BREEDING AREA WITH CA. 10-40 ADULTS, UP TO 18 NESTS AND UP TO 45 HATCHLINGS REPORTED EACH YEAR. NEST INITIATION OCCURS MID-JUNE TO EARLY JULY. THE BOUNDARIES FOR THIS OCCURRENCE ENCOMPASS ALL REPORTED TERN SIGHTINGS ON THE YELLOWSTONE RIVER. SPECIFIC OBSERVATION DATA AVAILABLE FROM MTNHP.

Last observation: 1995-07

Size (acres):

General site description:

LARGE RIVER WITH CHANNEL BARS AND ISLANDS USED FOR NESTING.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); BLM: MILES CITY FIELD OFFICE

Comments:

MOST BREEDING ACTIVITY LOCATED BETWEEN FALLON AND GLENDIVE. BIRDS ALSO NEST ON THE NORTH DAKOTA PORTION OF THE RIVER. NEST INITIATION DATES MAY VARY WITH RUN-OFF PATTERNS.

Information source:

ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 210800, HELENA, MT 59620-1800. 406/444-3009.

Survey site name: LOWER YELLOWSTONE RIVER

County: PRAIRIE; RICHLAND; DAWSON; WIBAUX; CUSTER

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft): 1970

Location:

YELLOWSTONE RIVER BETWEEN MILES CITY AND SAVAGE.

Township\Range:

Section:

TRS comments:

013N052E

26

CENTROID--OCCURRENCE EXTENDS OVER NUMEROUS TOWNSHIPS

see page 1



28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T14N, R55E, Sections 5 & 8, Dawson County  
APP# 5007-5008

Scientific Name: SCAPHIRHYNCHUS ALBUS

Common Name: PALLID STURGEON

Global Rank: G1G2

Forest Service status:

State Rank: S1

USFWS Endangered Species Act Status: LE

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

THIS OCCURRENCE IS BASED ON RECORDS OF FISH TAGGED AT FORT PECK BEING FOUND UP THE YELLOWSTONE, AND COLLECTIONS OF INDIVIDUALS AT NUMEROUS POINTS ALONG BOTH RIVERS. HIGHEST USE AREA APPEARS TO BE IN THE YELLOWSTONE RIVER BELOW THE INTAKE DIVERSION DAM AND, IN NORTH DAKOTA, THE MISSOURI RIVER FROM THE CONFLUENCE WITH THE YELLOWSTONE DOWNSTREAM TO THE HEADWATERS OF LAKE SACACAWEA. THE MONTANA PORTION OF THE YELLOWSTONE RIVER IS USED PRIMARILY IN THE SPRING AND SUMMER. POPULATION ESTIMATES ARE NOT AVAILABLE; BUT CATCH DATA OVER THE PAST SEVERAL DECADES SUGGEST SIGNIFICANT DECLINES.

Last observation: 1994

Size (acres): 0

General site description:

BROAD RIVERS WITH MODERATE CURRENT AND MANY STRETCHES WITH SANDY BOTTOM.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); FORT PECK INDIAN RESERVATION; PIROGUE ISLAND STATE NATURAL PARK; BLM: MILES CITY FIELD OFFICE; STATE LAND - UNDESIGNATED

Comments:

BOUNDARIES OF OCCUPIED HABITAT NOT WELL DEFINED.

Information source:

U.S. FISH AND WILDLIFE SERVICE. 1993. PALLID STURGEON RECOVERY PLAN. U.S. FISH AND WILDLIFE SERV., BISMARCH, N.D. 55 PP.

Survey site name: LOWER MISSOURI & YELLOWSTONE RIVERS

County: DAWSON; CUSTER; MCCONE; PRAIRIE; RICHLAND; ROOSEVELT; VALLEY; WIBAUX

USGS quadrangle: (EXTENDS OVER MANY QUADS)

Precision: G

Elevation (ft): 1860

Location:

THE MISSOURI RIVER BELOW FORT PECK DAM AND THE YELLOWSTONE RIVER BELOW MILES CITY.

Township\Range:

Section:

TRS comments:

018N056E

35

EXTENDS OVER MULTIPLE TOWNSHIPS

*See page 1*





Scientific Name: HYBOPSIS GELIDA

Common Name: STURGEON CHUB

Global Rank: G2

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status: C

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

A WIDESPREAD POPULATION, FAIRLY ABUNDANT.

Last observation: 1996

Size (acres): 0

General site description:

TURBID WATERS WITH MODERATE CURRENTS & DEPTHS.

Land owner/manager:

FORT PECK INDIAN RESERVATION; BLM: MILES CITY FIELD OFFICE; PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED

Comments:

BOUNDARIES OF OCCUPIED HABITAT NOT WELL DEFINED. HISTORICALLY REPORTED FROM LOWER MILK, TETON & TONGUE RIVERS.

Information source:

TEWS, A., B. GARDNER AND B. GARDNER. 1999. STATUS OF NATIVE FISHES OF 'SPECIAL CONCERN' IN MONTANA. UNPUBLISHED REPORT OF REPORTS ON 16 SPECIES. INCOMPLETE - IN PROGRESS.

Survey site name: LOWER MISSOURI & YELLOWSTONE RIVER DRAINAGES.

County: DAWSON; CUSTER; VALLEY; ROOSEVELT; RICHLAND; MCCONE; WIBAUX; PRAIRIE; POWDER RIVER

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft): 1860

Location:

MISSOURI RIVER BELOW FORT PECK DREDGE CUTS; YELLOWSTONE RIVER BELOW MILES CITY; POWDER RIVER TO WYOMING BORDER.

Township\Range:

Section:

TRS comments:

018N056E

36

CENTROID--OCCURRENCE EXTENDS OVER NUMEROUS TOWNSHIPS

See page 1





28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T14N, R55E, Sections 5 & 8, Dawson County  
APP# 5007-5008

Scientific Name: CYCLEPTUS ELONGATUS

Common Name: BLUE SUCKER

Global Rank: G3

Forest Service status:

State Rank: S3?

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

POPULATION APPEARS TO BE HEALTHY AND STABLE.

Last observation: 1995

Size (acres):

General site description:

PREFER SWIFT CURRENT HABITATS; SPAWN IN TRIBUTARIES & MAINSTEMS.

Land owner/manager:

FORT PECK RESERVOIR; FORT PECK INDIAN RESERVATION; BLM: MILES CITY FIELD OFFICE; PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED

Comments:

BOUNDARIES OF OCCUPIED HABITAT NOT WELL KNOWN.

Information source:

TEWS, A., B. GARDNER AND B. GARDNER. 1999. STATUS OF NATIVE FISHES OF 'SPECIAL CONCERN' IN MONTANA. UNPUBLISHED REPORT OF REPORTS ON 16 SPECIES. INCOMPLETE - IN PROGRESS.

Survey site name: LOWER MISSOURI & YELLOWSTONE RIVER DRAINAGES.

County: VALLEY; CUSTER; ROOSEVELT; RICHLAND; MCCONE; DAWSON; WIBAUX; PRAIRIE; ROSEBUD

USGS quadrangle: (EXTENDS OVER MULTIPLE QUADS)

Precision: G

Elevation (ft): 1900

Location:

MISSOURI RIVER BELOW FORT PECK; MILK RIVER BELOW HINSDALE; LOWER MOST REACH OF BIG MUDDY CREEK; YELLOWSTONE RIVER BELOW CARTERSVILLE; TONGUE RIVER BELOW GARLAND.

Township\Range:

Section:

TRS comments:

026N041E

5

EXTENDS OVER MULTIPLE TOWNSHIPS

*See Page 1*



28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T14N, R55E, Sections 5 & 8, Dawson County  
APP# 5007-5008

Scientific Name: POLYODON SPATHULA

Common Name: PADDLEFISH

Global Rank: G4

Forest Service status:

State Rank: S1S2

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

FISH RESIDE IN GARRISON RESERVOIR IN NORTH DAKOTA, THE FORT PECK DREDGE CUTS AND POSSIBLY SOME RIVER REACHES. THEY MIGRATE INTO THE RIVER REACHES, ON HIGH FLOWS IN THE SPRING, TO SPAWN.

Last observation: 1996

Size (acres):

General site description:

OCCASIONAL FISH REPORTED IN THE YELLOWSTONE ABOVE CARTERSVILLE DAM, IN THE BIGHORN AND IN THE TONGUE.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); BLM: MILES CITY FIELD OFFICE; FORT PECK INDIAN RESERVATION; STATE LAND - UNDESIGNATED

Comments:

THOUGH REPORTED AT THE TURN OF THE CENTURY, PADDLEFISH APPARENTLY DISAPPEARED FROM THESE WATERS UNTIL THE EARLY 1960s, WHEN THE MATURING POPULATION RESIDENT IN GARRISON RESERVOIR BEGAN ASCENDING THE MISSOURI AND YELLOWSTONE RIVERS TO SPAWN.

Information source:

ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 210800, HELENA, MT 59620-1800. 406/444-3009.

Survey site name: YELLOWSTONE & LOWER MISSOURI RIVERS

County: RICHLAND; PRAIRIE; CUSTER; DAWSON; MCCONE; ROOSEVELT; ROSEBUD; VALLEY; WIBAUX

USGS quadrangle: (EXTENDS OVER MANY QUADS)

Precision: G

Elevation (ft): 1900

Location:

MISSOURI RIVER BELOW FORT PECK DAM, MILK RIVER BELOW VANDALIA DAM AND YELLOWSTONE RIVER BELOW FORSYTH.

Township\Range:

Section:

TRS comments:

028N055E

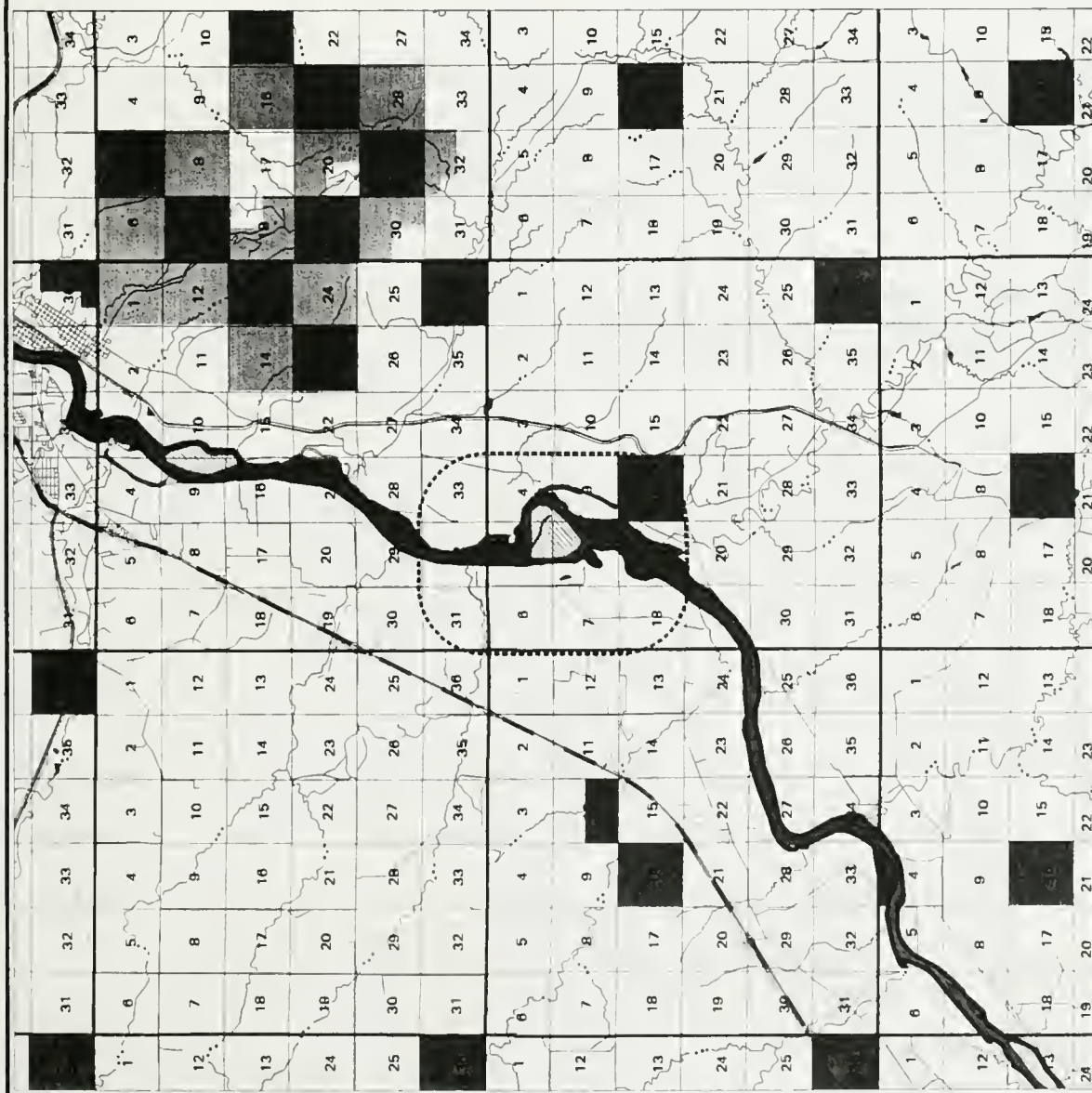
34

EXTENDS OVER MULTIPLE TOWNSHIPS

*See Page 1*



# Montana Species of Concern T14N, R55E, Secs. 5 & 8, Dawson Co. APP# 5007-5008



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Montana Natural Heritage Program  
Natural Resources Information System  
Montana State Library  
P.O. Box 201800  
Helena, MT 59620-1800  
(406) 444-3337 • www.mtnhp.org

Request nhp6666c  
December 28, 2001





28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T15N, R04W, Section 32, Lewis & Clark County  
APP# 5056

Scientific Name: FELIS LYNX

Common Name: LYNX

Global Rank: G5

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status: LT

BLM Status:

Occurrence Type:

Species occurrence data:

POTENTIAL HABITAT. THIS OCCURRENCE RECORD CONSISTS OF LARGE CONTIGUOUS AREAS THAT WERE GENERALIZED FROM SPECIFIC HABITATS IDENTIFIED BY THE WILDLIFE SPATIAL ANALYSIS LAB AT THE UNIVERSITY OF MONTANA AS BEING POTENTIAL LYNX HABITAT.

Last observation: 1999

Size (acres):

General site description:

DENSE, MATURE OR OLD-GROWTH LODGEPOLE PINE, DOUGLAS-FIR, ENGELMANN SPRUCE AND SUBALPINE FIR FORESTS. WELL-DEVELOPED UNDERSTORY IMPORTANT.

Land owner/manager:

Comments:

ALL HABITAT POLYGONS IN THE STATE ARE INCLUDED IN THIS OCCURRENCE RECORD. SOURCE DATA INCLUDES CAVEAT THAT SUITABLE HABITAT MAY BE OVERESTIMATED. SPRUCE-FIR FORESTS ABOVE 3500 FEET ELEVATION ARE PREFERRED HABITAT. LYNX NUMBERS CYCLE WITH NUMBERS OF SNOWSHOE HARE AND MAY BE VERY LOW FOR SEVERAL YEARS EVEN IN PREFERRED HABITAT. FOR THE ABOVE REASONS AND THE PRELIMINARY NATURE OF THE HABITAT MAPPING, THIS OCCURRENCE IS NOT DISPLAYED ON STANDARD MAPS OF ELEMENT OCCURRENCES.

Information source:

HART, M. M., W. A. WILLIAMS, P. C. THORNTON, K. P. MCLAUGHLIN, C. M. TOBALSKE, B. A. MAXELL, D. P. HENDRICKS, C. R. PETERSON, AND R. L. REDMOND. 1998. MONTANA ATLAS OF TERRESTRIAL VERTEBRATES. UNPUBLISHED REPORT. MONTANA COOPERATIVE WILDLIFE RESEARCH UNIT, THE UNIVERSITY OF MONTANA, MISSOULA. VII + 1302 PP.

Survey site name: STATEWIDE

County: BEAVERHEAD; CARBON; CASCADE; DEER LODGE; FLATHEAD; GALLATIN; GLACIER; GRANITE; JEFFERSON; JUDITH BASIN; LAKE; LEWIS AND CLARK; LINCOLN; MADISON; MEAGHER; MINERAL; MISSOULA; PARK; PONDERA; POWELL; RAVALLI; SANDERS; SILVER BOW; STILLWATER; SWEET GRASS; TETO

USGS quadrangle: (EXTENDS OVER MULTIPLE QUADS)

Precision: G

Elevation (ft):

Location:

INCLUDES MUCH OF WESTERN & SOUTH CENTRAL MONTANA

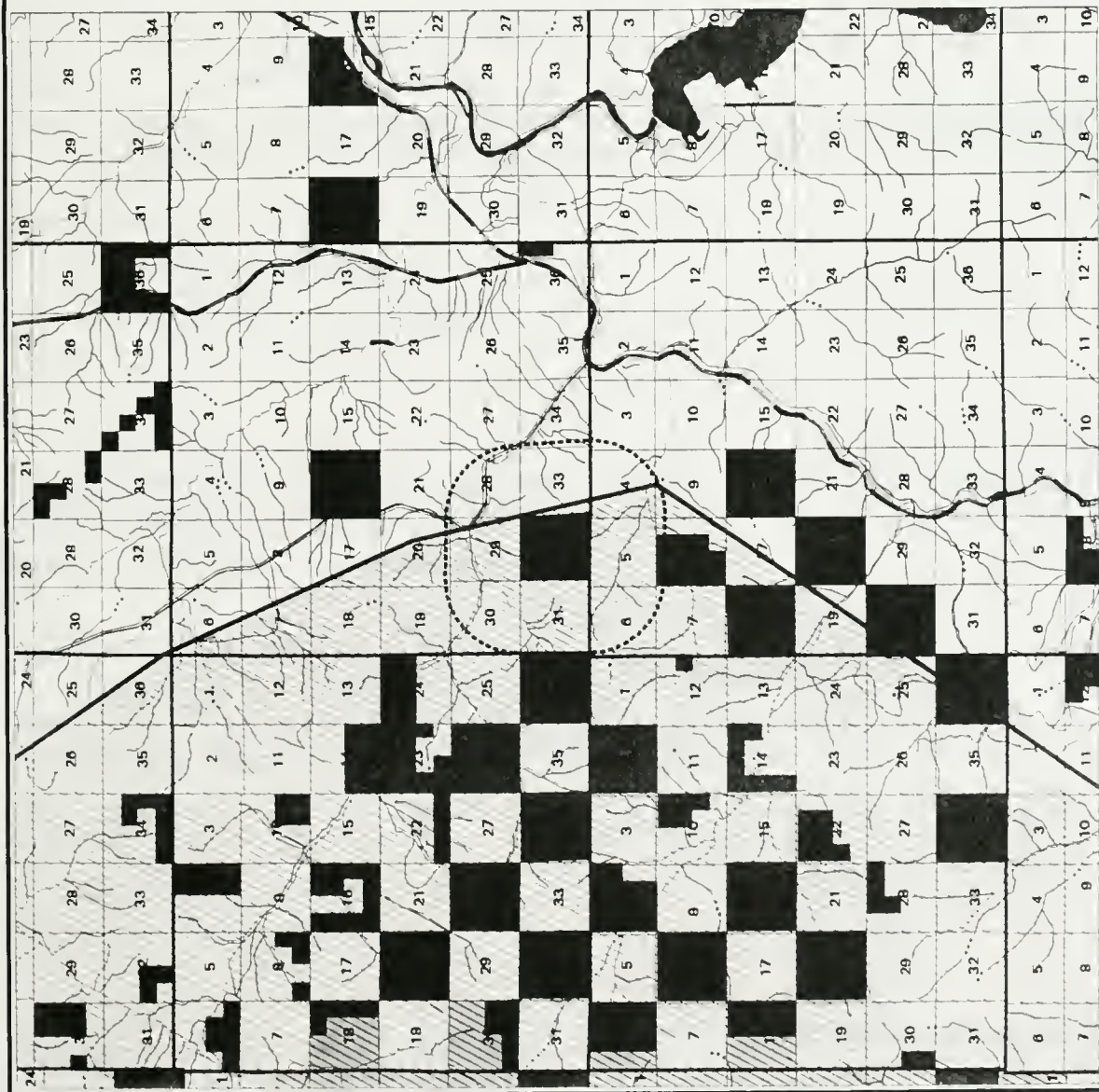
Township\Range:      Section:      TRS comments:

*The sensitive areas stipulation (F-1) will be utilized on application number 5056 T15N R4W Sec. 32 ~ 2 1/2 to ~ 3 1/2 miles From Wolf Creek in Lewis and Clark County.*





# Montana Species of Concern T15N, R04W, Sec. 32, Lewis & Clark County, APP# 5056



## Biological Data

- Point Locations
  - Animal
  - Plant
  - Plant Community
  - Other
  - Mammals
- Populations covering large areas

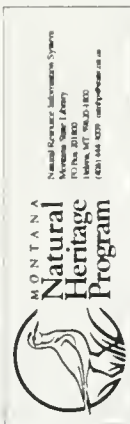
## Land Status

- BLM
- BOR (BuRec)
- CoE & Other DOD
- National Park Service
- National Forests
- Other USDA
- US Fish & Wildlife Service
- Tribal & Allotted
- State trust lands
- MT Fish, Wildlife & Parks
- University & institutions
- Local government
- Plum Creek
- Private Conservation
- Other private
- Wilderness (all agencies)
- Wild & Scenic Rivers (\*)
- Research Natural Areas (\*)
- Other special areas (ACEC, ONA, ...)

----- Search Area

- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.
- Not all legend items may occur on map.
- Features shown on this map do not imply public access to any lands.
- Refer to accompanying documentation for full explanation of map features.

Scale of Miles 0 1 2 3 4 5 6 7



Request nhp6666g  
December 28, 2001



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: ONCORHYNCHUS CLARKI LEWISI

Common Name: WESTSLOPE CUTTHROAT TROUT

Global Rank: G4T3

Forest Service status: SENSITIVE

State Rank: S3

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type: AGGREGATED OCCURRENCE - OCCUPIED HABITAT

Species occurrence data:

APPROXIMATE NUMBERS OF STREAMS: - WITH PURE POPULATIONS = 1; - WITH POTENTIALLY PURE  
POPULATIONS = 0; - WITH 90-99% PURE POPULATIONS = 5. IDENTIFIED POPULATION AGGREGATES: NONE.

Last observation:

Size (acres):

General site description:

POPULATIONS TESTED PURE IN: LIME GUCH.

Land owner/manager:

Comments:

FOR INFORMATION ON SPECIFIC POPULATIONS, CONTACT MONTANA FISH, WILDLIFE & PARKS OR  
QUERY THE MONTANA RIVERS INFORMATION SYSTEM @ <http://nris.state.mt.us/wis/mris1.html>.

Information source:

MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS. 1999. MEMORANDUM OF UNDERSTANDING AND  
CONSERVATION AGREEMENT FOR WESTSLOPE CUTTHROAT TROUT (ONCORHYNCHUS CLARKI LEWISI)  
IN MONTANA. 28PP.

Survey site name: TETON RIVER BASIN

County: LEWIS AND CLARK; TETON

USGS quadrangle: (EXTENDS OVER MULTIPLE QUADS)

Precision: G

Elevation (ft):

Location:

THIS OCCURRENCE INCLUDES ALL STREAM SEGMENTS WITHIN THE SUN RIVER WATERSHED THAT  
SUPPORT POPULATIONS THAT ARE 90% OR MORE PURE.

Township\Range:      Section:      TRS comments:

*The Rocky Mountain Front sensitive areas stipulation will  
be utilized on the leases For application numbers 5057 through  
5075 in Lewis and Clark County.*





8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: FELIS LYNX

Common Name: LYNX

Global Rank: G5

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status: LT

BLM Status:

Occurrence Type:

Species occurrence data:

POTENTIAL HABITAT. THIS OCCURRENCE RECORD CONSISTS OF LARGE CONTIGUOUS AREAS THAT WERE GENERALIZED FROM SPECIFIC HABITATS IDENTIFIED BY THE WILDLIFE SPATIAL ANALYSIS LAB AT THE UNIVERSITY OF MONTANA AS BEING POTENTIAL LYNX HABITAT.

Last observation: 1999

Size (acres):

General site description:

DENSE, MATURE OR OLD-GROWTH LODGEPOLE PINE, DOUGLAS-FIR, ENGELMANN SPRUCE AND SUBALPINE FIR FORESTS. WELL-DEVELOPED UNDERSTORY IMPORTANT.

Land owner/manager:

Comments:

ALL HABITAT POLYGONS IN THE STATE ARE INCLUDED IN THIS OCCURRENCE RECORD. SOURCE DATA INCLUDES CAVEAT THAT SUITABLE HABITAT MAY BE OVERESTIMATED. SPRUCE-FIR FORESTS ABOVE 3500 FEET ELEVATION ARE PREFERRED HABITAT. LYNX NUMBERS CYCLE WITH NUMBERS OF SNOWSHOE HARE AND MAY BE VERY LOW FOR SEVERAL YEARS EVEN IN PREFERRED HABITAT. FOR THE ABOVE REASONS AND THE PRELIMINARY NATURE OF THE HABITAT MAPPING, THIS OCCURRENCE IS NOT DISPLAYED ON STANDARD MAPS OF ELEMENT OCCURRENCES.

Information source:

HART, M. M., W. A. WILLIAMS, P. C. THORNTON, K. P. MCLAUGHLIN, C. M. TOBALSKE, B. A. MAXELL, D. P. HENDRICKS, C. R. PETERSON, AND R. L. REDMOND. 1998. MONTANA ATLAS OF TERRESTRIAL VERTEBRATES. UNPUBLISHED REPORT. MONTANA COOPERATIVE WILDLIFE RESEARCH UNIT, THE UNIVERSITY OF MONTANA, MISSOULA. VII + 1302 PP.

Survey site name: STATEWIDE

County:

BEAVERHEAD; CARBON; CASCADE; DEER LODGE; FLATHEAD; GALLATIN; GLACIER; GRANITE; JEFFERSON; JUDITH BASIN; LAKE; LEWIS AND CLARK; LINCOLN; MADISON; MEAGHER; MINERAL; MISSOULA; PARK; PONDERA; POWELL; RAVALLI; SANDERS; SILVER BOW; STILLWATER; SWEET GRASS; TETO

SGS quadrangle: (EXTENDS OVER MULTIPLE QUADS)

Precision: G

Elevation (ft):

Location:

INCLUDES MUCH OF WESTERN & SOUTH CENTRAL MONTANA

Township\Range:

Section:

TRS comments:

*See Page 1*



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: ACCIPITER GENTILIS

Common Name: NORTHERN GOSHAWK

Global Rank: G5

Forest Service status: SENSITIVE

State Rank: S3S4

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

NEST SITE AND TERRITORY. 19 SEPTEMBER 1991: ADULTS PRESENT IN STAND AREA. 10 JULY 1990:  
ADULT CALLS HEARD.

Last observation: 1991-09-19

Size (acres):

General site description:

COULD NOT LOCATE NEST.

Land owner/manager:

LEWIS & CLARK NATIONAL FOREST, ROCKY MOUNTAIN RANGER DISTRICT

Comments:

UTM: 379800 (N) 5240400 (W). CENTRUM=APPROXIMATE NEST SITE.

Information source:

WILDLIFE BIOLOGIST, LEWIS & CLARK NATIONAL FOREST. [NO DATE]. [PRINTOUT FROM ORACLE  
DATABASE ON GOSHAWK NEST SITES LOCATED ON THE LEWIS & CLARK NATIONAL FOREST.] 11PP.

Survey site name: BAILEY CREEK

County: LEWIS AND CLARK

SGS quadrangle: STEAMBOAT MOUNTAIN

Precision: M

Elevation (ft): 5600

Location:

CA. 12.5 MILES SOUTHWEST OF AUGUSTA BETWEEN BAILEY CREEK AND CYANIDE CREEK, ACCESSIBLE  
VIA COUNTY RTE 434 AND FS ROAD UP ELK CREEK.

Township\Range:      Section:      TRS comments:

018N008W

14

*See page 1*





8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: BUTEO REGALIS

Common Name: FERRUGINOUS HAWK

Global Rank: G4

Forest Service status:

State Rank: S3B,SZN

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type: OCCUPIED BREEDING HABITAT

Species occurrence data:

BREEDING POPULATION OF CA. 5 PAIRS. THE BOUNDARIES FOR THIS OCCURRENCE ENCOMPASS ALL REPORTED NEST OBSERVATIONS IN THE AREA. (SPECIFIC OBSERVATION DATA AVAILABLE FROM MTNHP.)

Last observation: 1997-05

Size (acres):

General site description:

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED

Comments:

FULL EXTENT OF OCCUPIED BREEDING HABITAT IS UNKNOWN.

Information source:

DUBOIS, KRISTI. REGION 4, MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS. 4600 GIANT SPRINGS ROAD, GREAT FALLS, MT 59406. 406-454-5840.

Survey site name: CROWN BUTTE AREA

County: CASCADE; LEWIS AND CLARK

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft):

Location:

LARGE AREA SOUTH OF SUN RIVER AND BETWEEN US 287 AND I-15.

Township\Range:

Section:

TRS comments:

019N002W

7

CENTROID--OCCURRENCE EXTENDS OVER NUMEROUS TOWNSHIPS

*Lewis and Clark County tracts (application numbers 5056 through 5075) are not within the Ferruginous hawk area. For Application numbers 5057 thru 5075, the Rocky Mountain Front sensitive areas stipulation will be utilized on their leases. Application # 5056 is in T15N,R4W Sec 32 is not near this area. -NO impact-*



Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: ACCIPITER GENTILIS

Common Name: NORTHERN GOSHAWK

Global Rank: G5

Forest Service status: SENSITIVE

State Rank: S3S4

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

NEST SITE AND TERRITORY. VERY AGGRESSIVE FEMALE, NEST OBSERVED.

Last observation: 1994-06-15

Size (acres):

General site description:

MATURE/OLD GROWTH DOUGLAS FIR.

Land owner/manager:

LEWIS & CLARK NATIONAL FOREST, ROCKY MOUNTAIN RANGER DISTRICT

Comments:

UTM: 372.1 (E) 5253.8 (N). CENTRUM=APPROXIMATE NEST SITE.

Information source:

PILLIOD, D. 1994. NORTHERN GOSHAWK INVENTORY ON THE ROCKY MOUNTAIN RANGER DISTRICT,  
LEWIS AND CLARK NATIONAL FOREST. UNPUBLISHED REPORT. CHOTEAU, MT. 4 PP.

Survey site name: FORD CREEK

County: LEWIS AND CLARK

USGS quadrangle: DOUBLE FALLS

Precision: M

Elevation (ft): 5700

Location:

TAKE FS RD 235 CA. 14 MILES WEST FROM AUGUSTA TO FORD-WILLOW CREEK TRAIL, THEN CA. 1 MILE  
NORTH ON TRAIL.

Township\Range:

Section:

TRS comments:

019N009W

1

NW4

*See Page 1*



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: DOWNINGIA LAETA

Common Name: GREAT BASIN DOWNINGIA

Global Rank: G5

Forest Service status:

State Rank: S1

USFWS Endangered Species Act Status:

BLM Status: WATCH

Occurrence Type:

Species occurrence data:

SPECIMEN COLLECTED.

Last observation: 1887

Size (acres):

General site description:

UNKNOWN.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

Information source:

RYDBERG, P. A. 1900. CATALOGUE OF THE FLORA OF MONTANA AND THE YELLOWSTONE NATIONAL PARK. MEMOIRS, NEW YORK BOTANICAL GARDEN 1:1-492.

Survey site name: AUGUSTA

County: LEWIS AND CLARK

SGS quadrangle: AUGUSTA

Precision: G

Elevation (ft): 4000

Location:

AUGUSTA

Township\Range:

020N006W

Section:

17

TRS comments:

*See Page 1*



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: CYGNUS BUCCINATOR

Common Name: TRUMPETER SWAN

Global Rank: G4

Forest Service status: SENSITIVE

State Rank: S2B,S2N

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type:

Species occurrence data:

A SUBPOPULATION OF THE ROCKY MOUNTAIN POPULATION; PROBABLY 1-3 PAIRS BREEDING IN THIS AREA, POSSIBLY AT LAKES NOT CURRENTLY MAPPED. MAPPED LAKES INCLUDE ALL THOSE WHERE BREEDING HAS BEEN REPORTED IN THE PAST 20 YEARS.

Last observation: 1994

Size (acres): 0

General site description:

POTHOLE LAKES, GENERALLY WITH SUFFICIENT WATER TO MAINTAIN EMERGENT VEGETATION THROUGH THE SUMMER.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); SUN RIVER WILDLIFE MANAGEMENT AREA

Comments:

THOUGH ADDITIONAL PAIRS MAY BE PRESENT ON PRIVATE, SECLUDED LAKES IN THIS AREA, THIS SUBPOPULATION IS CLEARLY MARGINAL IN TERMS OF RECRUITMENT AND CONSERVATION OF THE ROCKY MOUNTAIN POPULATION, WHICH TOTALS SEVERAL THOUSAND ADULTS.

Information source:

SCHWITTERS, MICHAEL T. CHOTEAU, MT. (406)466-2236. EMAIL: SCHWIT@3RIVERS.NET.

Survey site name: SOUTHERN ROCKY MOUNTAIN FRONT

County: LEWIS AND CLARK

SGS quadrangle: NILAN RESERVOIR; BEAN LAKE; DOUBLE FALLS; BARR CREEK

Precision: G

Elevation (ft): 4500

Location:

VARIOUS POTHOLE LAKES GENERALLY WEST TO SOUTHWEST OF AUGUSTA.

Township\Range:	Section:	TRS comments:
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020N008W		
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018N006W	19	
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018N007W	02	
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021N008W	03	
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See Page 1





-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T19N, R07-08W, Lewis & Clark County  
APP# 5057-5075

Scientific Name: URSUS ARCTOS HORRIBILIS

Common Name: GRIZZLY BEAR

Global Rank: G4T3

Forest Service status: THREATENED

State Rank: S1S2

USFWS Endangered Species Act Status: LT

BLM Status: SPECIAL STATUS

Occurrence Type: OCCUPIED HABITAT

Species occurrence data:

OCCUPIED HABITAT. THIS OCCURRENCE IS APPARENTLY SEPARATED FROM THAT IN THE MISSION MOUNTAINS TO THE EAST AND BECOMING ISOLATED FROM POPULATIONS IN CANADA TO THE NORTH. THE POPULATION IS ESTIMATED AT 549-813 BEARS WITH A MINIMUM OF 306 BEARS (INCLUDING THE MISSION MOUNTAINS PORTION), ACCORDING TO THE U.S. FISH AND WILDLIFE SERVICE. FROM 1987-1992, THE AVERAGE KNOWN HUMAN-CAUSED MORTALITY WAS 11.3 BEARS/YEAR, ACCORDING TO THE U.S. FISH AND WILDLIFE SERVICE. THE BOUNDARIES FOR THIS OCCURRENCE ARE SLIGHTLY MODIFIED FROM THE RECOVERY ZONE BOUNDARY TO INCLUDE AREAS WHERE BEARS ARE REPEATEDLY OBSERVED.

1st observation:

Size (acres):

General site description:

GRIZZLIES USE A WIDE RANGE OF HABITATS, FROM LOW-ELEVATION RIPARIAN AREAS TO ALPINE AND TALUS SLOPES.

Land owner/manager:

SCAPEGUAT WILDERNESS; BOB MARSHALL WILDERNESS; GREAT BEAR WILDERNESS; GLACIER NATIONAL PARK; FLATHEAD NATIONAL FOREST; LEWIS & CLARK NATIONAL FOREST; HELENA NATIONAL FOREST; LOLO NATIONAL FOREST; CORPORATE TIMBERLANDS; PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED; THE NATURE CONSERVANCY EASEMENT 34; THE NATURE CONSERVANCY EASEMENT 38; MONTANA LAND RELIANCE EASEMENT 4; UNIVERSITY OF MONTANA LAND - BANDY RANCH; THE NATURE CONSERVANCY EASEMENT 18; SWAN RIVER OXBOW PRESERVE

Comments:

"OCCUPIED HABITAT" IS BASED ON THE RECOVERY ZONE BOUNDARY AND THE PROFESSIONAL JUDGEMENT OF THE MTNHP ZOOLOGIST. (THE RECOVERY ZONE BOUNDARY AND BEAR MANAGEMENT UNITS ARE AVAILABLE FROM MTNHP.)

Information source:

SERVHEEN, C. 1993. GRIZZLY BEAR RECOVERY PLAN. UNPUBLISHED REPORT TO THE U.S. FWS. UNIVERSITY OF MONTANA, MISSOULA. 181 PP.

Harvey site name: NORTHERN CONTINENTAL DIVIDE

County: FLATHEAD; GLACIER; PONDERA; TETON; LEWIS AND CLARK; POWELL; MISSOULA; LAKE; LINCOLN

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft): 3200

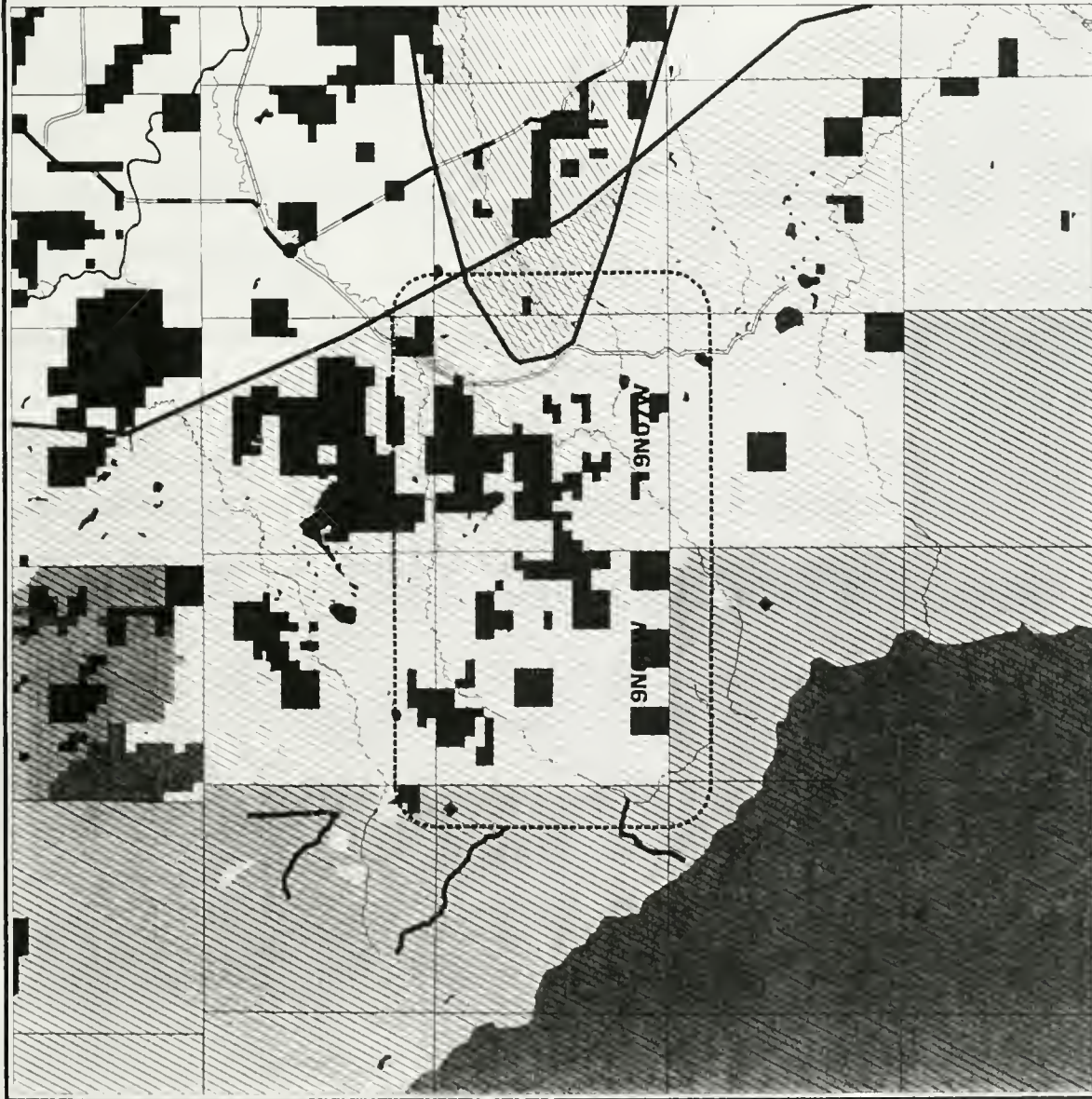
Location:

THIS RECORD ENCOMPASSES AN AREA FROM CANADA SOUTH TO STATE HIGHWAY 200, AND FROM EAST FRONT TO SWAN AND STILLWATER RIVERS.

Township\Range:      Section:      TRS comments:



# Montana Species of Concern T19N, R07-08W, Lewis & Clark County APP# 5057-5075



- Point Locations**
- Animal
  - Plant
  - Plant Community
  - Other
- Populations covering large areas**
- Birds
  - Mammals
  - Bull &/or Westslope Cutthroat Trout
- Biological Data**
- Animal
  - Plant
  - Plant Community
  - Other
- Land Status**
- BLM
  - BDR (BuRec)
  - CoE & Other DOD
  - National Park Service
  - National Forests
  - Other USDA
  - US Fish & Wildlife Service
  - Tribal & Allotted
  - State trust lands
  - MT Fish, Wildlife & Parks
  - University & institutions
  - Local government
  - Plum Creek
  - Private Conservation
  - Other private
  - Wilderness (all agencies)
  - Wild & Scenic Rivers (\*)
  - Research Natural Areas (\*)
  - Other special areas (ACEC, DNA, ...)

----- Search Area

- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.
- Not all legend items may occur on map.
- Features shown on this map do not imply public access to any lands.
- Refer to accompanying documentation for full explanation of map features.

Scale of Miles 0 2 4 6 8 10 12 14



Montana Natural Heritage Program  
Natural Resources Information System  
Version: State 1.2.2007  
Project: 20100  
Date: 10/10/2007  
User: nhp@montana.gov

Request nhp6666h  
December 28, 2001





28-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T15N, R25E, Petroleum County  
APP# 5014-5017

Scientific Name: BUTEO REGALIS

Common Name: FERRUGINOUS HAWK

Global Rank: G4

Forest Service status:

State Rank: S3B,SZN

USFWS Endangered Species Act Status:

BLM Status: SPECIAL STATUS

Occurrence Type: OCCUPIED BREEDING HABITAT

Species occurrence data:

BREEDING POPULATION OF AT LEAST 10 PAIRS. THE BOUNDARIES FOR THIS OCCURRENCE ENCOMPASS ALL REPORTED NEST OBSERVATIONS IN THE AREA. (SPECIFIC OBSERVATION DATA AVAILABLE FROM MTNHP.)

Last observation: 1996-06

Size (acres):

General site description:

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE); STATE LAND - UNDESIGNATED; BLM: LEWISTOWN FIELD OFFICE; WAR HORSE NATIONAL WILDLIFE REFUGE

Comments:

FULL EXTENT OF OCCUPIED BREEDING HABITAT IS UNKNOWN.

Information source:

ROGERS, R. AND A. ROGERS. 1995. PROJECT REPORT: A SURVEY OF NESTING FERRUGINOUS HAWKS (BUTEO REGALIS) ON PUBLIC LANDS IN PETROLEUM AND FERGUS COUNTIES, MONTANA.

Survey site name: VALENTINE AREA

County: PETROLEUM; FERGUS

USGS quadrangle: (EXTENDS OVER NUMEROUS QUADS)

Precision: G

Elevation (ft):

Location:

LARGE AREA GENERALLY SOUTH OF THE MISSOURI RIVER AND NORTH OF WINNETT.

Township\Range:

Section:

TRS comments:

017N025E

20

CENTROID--OCCURRENCE EXTENDS OVER NUMEROUS TOWNSHIPS

Application numbers 5014 T15N R25E Sec 16 N 1/2  
and 5015 T15N R25E Sec. 24 SW 1/4

are within the Ferruginous hawk area.

Portions of Application number 5016 T15N R25E Sec. 29, NW 1/4, S 1/2  
and -5017 T15N R25E Sec. 30...

are within the Ferruginous hawk area.  
The wildlife survey stipulation will be utilized on the leases of these tracts.



# Montana Species of Concern T15N, R25E, Petroleum County APP# 5014-5017



## Biological Data

- Point Locations
- Animal: ♦
  - Plant: ●
  - Plant Community: ★
  - Other: +
- Populations covering large areas
- Birds: [hatched box]

## Land Status

- BLM
- BOR (BuRec)
- CoE & Other DOD
- National Park Service
- National Forests
- Other USDA
- US Fish & Wildlife Service
- Tribal & Allotted
- State trust lands
- MT Fish, Wildlife & Parks
- University & institutions
- Local government
- Plum Creek
- Private Conservation
- Other private
- Wilderness (all agencies)
- Wild & Scenic Rivers (\*)
- Research Natural Areas (\*)
- Other special areas (ACEC, ONA, ...)

----- Search Area

- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.
- Not all legend items may occur on map.
- Features shown on this map do not imply public access to any lands.
- Refer to accompanying documentation for full explanation of map features.

Scale of Miles 0 2 4 6 8 10



Montana Natural Heritage Program  
Natural Resource Information Systems  
Montana Department of Natural Resources  
1111 Ave. of the Sciences  
Helena, MT 59601-1100  
(406) 444-6200 mnhp@dnr.mt.gov

Request nhp6666j  
December 28, 2001





Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: *POPULUS DELTOIDES* / *SYMPHORICARPOS OCCIDENTALIS* WOODLAND

Common Name:

Global Rank: G2G3

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: Sample point, representative riparian community

#### Species occurrence data:

This woodland is a linear (80 to 150 feet wide) patch of less than 5 acres on the first terrace up from Buggy Creek. This size and orientation is typical for *Populus deltoides* stands along this and similar drainages in this vicinity. The creek is sufficiently downcut at this point, about 6 to 7 feet below terrace, that the capillary fringe cannot supply moisture even at high water. The upper canopy, composed primarily of *Populus deltoides*, but including *Fraxinus pennsylvanica*, has a total cover of about 30 to 40% and height varies between 25 and 35; tree diameters are in the 9 to 16 inch range and overall give the impression of a relatively two-aged stand with the more numerous, smaller diameter *F. pennsylvanica* headed for eventual dominance. *Populus deltoides* establishment is correlated with flood episodes sufficient to leave a fresh deposit of alluvium coupled with an abundant seed crop. The shrub layer is dominated by *Symphoricarpos occidentalis* that is highly variable in its cover across the stand (10 to 80% canopy cover). *Shepherdia argentea* is a minor component and *Amelanchier alnifolia* is headed that way due to extremely heavy hedging; both were probably established when the stream was not so downcut. The undergrowth is actually dominated by *Pascopyrum smithii* and *Poa pratensis*, which together approach 80% canopy. More than trace amounts of *Elymus glaucus* and *Nassella viridula* testify to the relatively mesic nature of this site. Only two forbs, *Galium boreale* and *Aster falcatus*, occur in greater than trace amounts, though other mesic site indicators are present including *Aster laevis* and *Galium trifidum*. Several forbs indicative of disturbance, including *Hedeoma hispida*, *Glycyrrhiza lepidota*, and *Artemisia ludoviciana*, are present in trace amounts. Immediately adjacent communities on the same terrace include *Symphoricarpos occidentalis*, *Pascopyrum smithii*, *Pascopyrum smithii* - *Poa secunda*, and *Artemisia cana* / *Pascopyrum smithii*.

First observation: 1999-07-29

Size (acres):

#### General site description:

This landscape has been minimally inventoried, especially the floodplains of Buggy Creek and to an even lesser degree its tributaries (principally Canyon, Crooked and Alkali Creeks), but all these systems appear to have *Populus deltoides* (plains cottonwood), *Salix* spp. (willow) and *Artemisia cana* (silver sagebrush) communities represented. On the floodplains of the downstream portion of Buggy Creek (Landscape) *P. deltoides* / *Symphoricarpos occidentalis* (- / western snowberry), *S. occidentalis*, *A. cana* / *Elymus lanceolatus* - *Nassella viridula* (- / thickspike wheatgrass - green needlegrass), *Pascopyrum smithii* (western wheatgrass) and *Deschampsia cespitosa* (tufted hairgrass) Herbaceous Vegetation were observed to occur in a complex mosaic of small to large patch communities. These representations are among the best developed of riparian communities within the greater study area. Upstream (on Buggy Creek) floodplains have appreciable coverages of a depauperate community occurring on heavy soils provisionally labeled *P. smithii* - *Poa secunda* (western wheatgrass - Sandberg's bluegrass) and lesser cover in small, swale-associated patches of the provisional *P. smithii* - [*Carex stenophylla*] (western wheatgrass - threadleaf sedge) and on salt-affected sites *P. smithii* - *Distichlis spicata* (western wheatgrass - inland saltgrass). *Salix exigua* (sandbar willow) is dominant in narrow streamside stringers. Common communities, usually comprising the grassland matrix of the rolling uplands, include those dominated by or where either *P. smithii* or *Elymus lanceolatus* (thickspike wheatgrass) have high coverage (exceeding 25%) with *Stipa comata* (needle-and-thread) and *Bouteloua gracilis* (blue grama) as accessory species. Where swales (and deeper soils?) are found or on gentle to steep protected or northerly-facing slopes the *Stipa curtipetata* - [*Elymus lanceolatus*] (porcupine grass - [thickspike wheatgrass]) association may occur, though not with the high predictability found in the Dry Fork Creek Landscape; more predictably sites of higher moisture status are *E. lanceolatus* - *Nassella viridula* (thickspike wheatgrass - green needlegrass). Where grazing has been intensive for extended periods or on turnback lands or simply on coarser-textured soils various permutations of the *S. comata* - *B. gracilis* association are found, often with *Selaginella densa* (dense spikemoss) approaching sod-like coverage. This landscape differs somewhat from others within the study area in that even where steeper, somewhat eroding slopes were examined *Juniperus horizontalis* (creeping juniper)- dominated seral stands were not encountered.

Land owner/manager:

BLM: MALTA FIELD OFFICE



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

## Comments:

This site should be monitored for utilization by cattle and wild ungulates; there is a question whether these sites have the capacity to support a shrub composition that reflects a more mesic nature, namely the presence or even abundance of *Cornus sericea*. This species can be extirpated by ungulate browsing and judging by the severe hedging of *Amelanchier alnifolia* and yet healthy populations of desirable native graminoids the culprit, if there is one, would seem to be wild ungulates.

## Information source:

Survey site name: BUGGY CREEK LANDSCAPE

County: VALLEY

USGS quadrangle: CORNWELL RESERVOIR

Section: S

Elevation (ft): 2470

## Location:

The southern end of the Buggy Creek Landscape is located about 12 air miles northwest of Glasgow, MT. It is most easily reached by traveling west from Glasgow on State Highway 2 approximately 10.5 miles. Take to the north a county road that leads directly to and through the Cornwell Property; this county road intersects Highway 2 between Sections 23 and 24 of Township 30 N and Range 38 E. Take the county road north about 1.7 miles to where it drops into the Alkali Creek drainage and crosses same (on Cornwell ranch among outbuildings) and then climbs out of the shallow coulee and heads up onto the benchlands. Drive approximately 7.4 miles north across benchlands; then park and walk due west to Buggy Creek on the east bank of which is developed a linear stand of *Populus deltoides*.

Township\Range:	Section:	TRS comments:
031N038E	2	

*This site has a global rank of G2G3, but it is unranked for the state. Application #5030 T33N R38E, Sec. 36, All is ~6-7 miles from this site. However a portion of Buggy Creek with trees is indicated in the NW portion of this Section 36. The avoid wooded areas stipulation and the stream, wetland, etc. buffer stipulation will be utilized on this tract.*



3-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: CENTUNCULUS MINIMUS

Common Name: CHAFFWEED

Global Rank: G5

Forest Service status:

State Rank: S2

USFWS Endangered Species Act Status:

BLM Status: WATCH

Occurrence Type:

Species occurrence data:

OVER 1,000,000 INDIVIDUALS IN AT LEAST 3 SUBPOPULATIONS, WITH HIGHEST NUMBERS AND DENSITIES IN THE NE4 OF SECTION 6. IN FRUIT AND LATE FLOWERING.

Last observation: 1999-07-12

Size (acres): 3

General site description:

BROAD, GENTLE MARGINS OF SWALES IN THE MIDDLE OF UPLAND PLAINS; ON GLACIAL TILL WITH LOESS ON TOP. IN WELL-DEVELOPED COMMUNITY DOMINATED BY PASCOPYRUM SMITHII - ELEOCHARIS ACICULARIS; ASSOCIATED WITH GNAPHALIUM PALUSTRE AND ALOPECURUS CAROLINIANUS.

Land owner/manager:

STATE LAND - UNDESIGNATED

Comments:

OBSERVED BY B. HEIDEL.

Information source:

BOTANIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, HELENA, MT 59620-1800.

Survey site name: WEST FORK PORCUPINE CREEK

County: VALLEY

USGS quadrangle: DRY FORK CREEK

Precision: S

Elevation (ft): 2830

Location:

APPROXIMATELY 28 MILES NORTH OF GLASGOW.

Township\Range:      Section:      TRS comments:

032N040E

033N039E

35

S2

Application # 5026 T32N, R40E, Section 6, Lots 3-6, 11, 12, S2

and # 5053 T33N, R39E Section 35, N2 adjoin these sites within these sections.

The stream, wetland, pond, etc. buffer stipulation which will be utilized on these tracts for water and riparian concerns will also cover concern for this plant, (see NRIS habitat description).

Application # 5052 T33N, R39E, Section 34, N2, by MNHP in Internet field guide).

# 5019, T32N, R39E, Section 1, Lots 1 thru 12, S2 adjoin the sections noted above.

The stream, wetland, pond, etc. buffer stipulation will also be utilized on these tracts.





Dec-01

Montana Natural Heritage Program

Series of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: STIPA CURTISETA HERBACEOUS VEGETATION

Common Name:

Global Rank: G?

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE UPLAND COMMUNITY

Species occurrence data:

This grassland type constitutes the matrix vegetation over much of the uplands within this State Lands block. It is associated with Silty Range Sites; this site specifically occurs on a gently rolling surface at 2,920 to 2,970 feet elevation. Soils are moderately well-drained with clay loam to silt loam textures predominating. *Stipa curtisetata*, the dominant and diagnostic graminoid, averages about 40 to 50% canopy cover but exhibits distinguishably greater cover (to 70%) within the gentle, shallow swales where the cover of *Nassella viridula* is also higher. Because *Pascopyrum smithii* and *Elymus lanceolatus* are poorly represented and *Carex inops* (*C. stenophylla* too) and *Calamagrostis montanensis* are well-represented the plot from which the element is described is slightly atypical for the type as it occurs within this landscape and perhaps for the type at large. The shrub component is represented by *Artemisia frigida* alone with barely greater than trace amounts. The forb layer is characteristically diverse with *Anemone patens*, *Vicia americana*, *Sphaeralcea coccinea* and *Arnica sororia* being consistently present.

Last observation: 1999-07-09

Size (acres):

General site description:

This site is comprised of a primarily rolling upland landscape wherein are scattered a few shallow basins ringed with emergent vegetation types and at least one spring that has a peatland developed about its source. Two intermittent streams, the West Fork of Porcupine Creek and Dry Fork Creek, drain most of the area and have very narrow, if any, associated riparian stringers. Only two of numerous basin wetlands were examined and found to be dominated by the *Eleocharis acicularis* (needle spike-rush) community type from the wettest portions (almost pure *E. acicularis*) to the drawdown zone where *Pascopyrum smithii* (western wheatgrass) and *E. palustris* (common spikesedge) are important members of the community. In the vicinity of the spring, perhaps where upwelling occurs and peat has accumulated, the wettest community is dominated by densely set tussocks of *Carex aquatilis* (water sedge) and *C. praegracilis* (clustered field sedge) and *Deschampsia cespitosa* (tufted hairgrass) generally constitute not more than 10% canopy cover. Slightly drier spring-associated vegetation is dominated by the *D. cespitosa* plant association wherein *Juncus balticus* (Baltic rush) is an important to co-dominant species. The uplands, especially where silty soils predominate, are dominated by a relatively unbroken expanse of the *Stipa curtisetata* / [*Elymus lanceolatus*] (Northern porcupine grass - thickspike wheatgrass) plant association: sites with sandier soils tend to support *Stipa comata* (needle-and-thread)-dominated communities. This landscape harbors by far the most extensive and highest quality example of the *S. curtisetata* - [*E. lanceolatus*] association in the U. S. Though traversed by a limited road system and grazed by domestic stock, the whole Dry Creek Landscape is sufficiently intact and extensive that it constitutes the single best example of what was, before for the adjacent terrain had been put under the plow, a prevailing and highly productive landscape mosaic.

Land owner/manager:

STATE LAND - UNDESIGNATED

Comments:

The fire regime for this landscape is largely unknown. Currently the weed threat is quite manageable but there are localized populations of *Bromus japonicus* that could expand into a burned range as has occurred on landscapes slightly to the south.

Information source:

Survey site name: DRY FORK CREEK LANDSCAPE

County: VALLEY

USGS quadrangle: DRY FORK CREEK

Section: S

6666n.eor

MTNHP ref. CEGLMTHP42\*002\*M





Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Elevation (ft): 2850

Location:

This community is within the Dry Fork Creek drainage about 26 air miles due north from Glasgow, Montana. From the junction of State Highways 24 and 2, take Route 24 approximately 24.3 mi. to the north to a dirt road that exits to the west. This dirt road, which lies at the intersection of sections 7, 8, 17, and 18 in Township 32 N, then immediately bears due north. Follow this road about 4 miles north, then 3.5 miles westerly and then it swings southerly for about 1.5 miles placing one about an eighth miles east of the northeast corner of Section 30. Navigate to the southeastern corner of the southwestern quarter/quarter section of the northeastern section of Section 30 (part of a State Land block).

Township\Range:

032N040E ?

Section: <sup>↑</sup>  
6 ?

TRS comments:

From the detailed location description above, it appears that the legal description for this site should be T33N, R39E, Section 30 SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ . This Vegetation is not ranked globally or for the state as rare or T&E. The tract is not within or adjoining the Bitter Creek WSA. It is school trust land, which is managed per the trust mandate to generate revenue for the trust. There is a history of surface leasing from the 1920's to present on Section 30. The proposed oil and gas leasing does not affect grazing or agricultural practices on the tract. An access road is present in the western portion of the section.

From the species occurrence data, this Vegetation appears abundant in the area. The stream, wetlands, etc. buffer stipulation will be utilized on this tract for water and associated wetland concerns. The basic stipulations placed on all MT oil and gas leases allow for site-specific review of operating plans to be carried out before activity is allowed.

- No impact -



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: ERIOGONUM PAUCIFLORUM - GUTIERREZIA SAROTHRAE BADLANDS SPARSE VEGET

Common Name:

Global Rank: G?

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: Sample point, representative badland community

Species occurrence data:

The *Eriogonum pauciflorum* - *Gutierrezia sarothrae* Sparse Vegetation association occurs as separate small patches, from somewhat less than 0.1 acres to over 2 acres, in close proximity one to another so that a matrix is created across the alluvial flats on which they are found. The intervening vegetation types are predominantly *Pascopyrum smithii* - *Bouteloua gracilis* on deeper, less erosive soils, *P. smithii* clay pan, and the *Puccinellia nuttalliana* association on lower areas with salt efflorescence. The substrate is primarily shale-derived alluvium with a veneer of glacial drift that either has been deposited in place from glacial streams or derived from adjacent uplands with subsequent erosion. The extremely erosive substrate shows the effects of both wind and water with much pedicelling of woody plants. Copious amounts (>60% in places) of surface gravels and exposed soil (10-20%) also testifies to the deflating effects of erosion; a seemingly contradictory observation is the high coverage of lichens, which can reach 30 to 40%. The vegetation is sparse with mostly less than 10% canopy cover but values range as high as 20%. Four dwarf-shrubs, *Eriogonum pauciflorum*, *Chrysothamnus nauseosus*, *Atriplex gardneri*, and *Gutierrezia sarothrae*, are regularly present, though only *E. pauciflorum* was observed to have more than 5% cover. Two grasses, *Puccinellia nuttalliana* and *Distichlis spicata*, are consistently present in low amounts, generally less than 10%. The forb component is depauperate in cover and species richness with only *Hymenoxys richardsonii*, *Iva axillaris* and *Thermopsis rhombifolia* being found in greater than trace amounts.

Last observation: 1999-07-09

Size (acres):

General site description:

This site is characterized as a badlands environment wherein erosion, predominantly by water but also via wind, is the dominant landscape process. Intricate stream-dissection has resulted in topography distinguished by a fine drainage network, high drainage densities and short, steep slopes with narrow interfluvies. At least on the eastern, southern and northern perimeter of the area there exists a relatively distinct "rim" or shallow escarpment. Looking westward from the eastern rim the badlands seem contained in a broad, shallow, gently tilted to the southwest bowl, from the floor of which project in intricate profusion, hillocks, narrow ridges and bentonitic ballons, all separated by narrow alluvial flats. At the badland's downstream end streams have coalesced and broader alluvial flats result. The prevailing aspect is one of an intricate patchwork of raw dull gray exposed substrate and patches of vegetation, with the denser and more extensive vegetation confined to north- and east-facing exposures. Due to extreme topographic dissection there are no matrix communities; most communities are small patch and even fragmentary. It is from this geologically unique area that a number of new communities have been provisionally described, including a number dominated by *Juniperus horizontalis* (creeping juniper) that appear to function as primary colonizers of eroding positions, mostly protected slopes; included here are *J. horizontalis* / *Elymus lanceolatus* - *Nassella viridula* [creeping juniper / thickspike wheatgrass - green needlegrass], *J. horizontalis* / *Stipa curtiseta* - *E. lanceolatus* [creeping juniper / porcupine grass - thickspike wheatgrass]; typically occupying colluvial and alluvial settings are *J. horizontalis* / *Calamovilfa longifolia* [creeping juniper / prairie sandreed], *J. horizontalis* / *Juncus balticus* [creeping juniper / Baltic rush], and *J. horizontalis* / *Elymus trachycaulis* [creeping juniper / bearded wheatgrass]; drier exposures with high erosion rates exhibit *J. horizontalis* / *Schizachyrium scoparium* [creeping juniper / little bluestem]. Found tucked into protected positions, drainage heads, swales and toeslopes receiving subsurface moisture are small patch *Shepherdia argentea* (buffaloberry) communities; these communities are magnets for wildlife (and perhaps consequently also foci for *Euphorbia esula* [leafy spurge] populations). The riparian and floodplain environments support communities most resembling those of less extreme landscapes; here are found *Deschampsia cespitosa* (tufted hairgrass)- and *Juncus balticus* (Baltic rush)-dominated sites with *Pascopyrum smithii* (western wheatgrass) abundant on the first terrace above intermittent streams. On salt-affected sites the *Pascopyrum smithii* - *Distichlis stricta* [western wheatgrass - inland saltgrass] association is common. Other sites, often on or influenced by bentonite, support sparse vegetation (<10 % cover) dominated by *Artemisia longifolia* (longleaf sagewort) or *Atriplex gardneri* / *Atriplex suckleyi* [Gardner's saltsage / rillscale] and acid shales also tend to support depauperate communities often characterized by the *Eriogonum pauciflorum* - *Gutierrezia sarothrae* [few flowered wild buckwheat - broom snakeweed] association.

Land owner/manager:



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

## STATE LAND - UNDESIGNATED

## Comments:

Though this is a sparse vegetation site, it still could be adversely impacted by grazing and especially by off road vehicle traffic of any sort, which would accelerate the already high erosion rates following vegetatin destruction.

## Information source:

Survey site name: BITTER CREEK BADLANDS LANDSCAPE

County: VALLEY

USGS quadrangle: DRY FORK CREEK

Section: S

Elevation (ft): 2850

## Location:

The Bitter Creek Badland is located in northwestern Valley County, north-northwest of Glasgow, MT. From Glasgow take State Highway 2 nineteen and one miles west to the intersection with Vandalia and Britsch Roads (Valley County Rds.). Take Britsch Rd. northward for approximately 12.5 miles to the intersection with county heading westerly toward Ada and Abey Reservoirs, placing one at the southern extent of the Bitter Creek Badland. Continue north-northeast on Britsch Rd. to its intersection with Trail #7, taking the west branch and descend the escarpment and proceed 2.7 miles west. The eroded benchlands badland where this community is found lies south of the road and north of Eagle Creek.

Township\Range:      Section:      TRS comments:

032N040E

6

Eagle Creek is not located in T32N R40E. It is primarily in T33N, R37E. This site is likely in the Bitter Creek WSA NOT T32N R40E. Landowner maybe BLM rather than state, but the section location is hard to determine From above description, State land in T33N R37E is not proposed for oil & gas leasing on the March 5, 2002 MT oil & gas lease sale.

- No impact -







Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: PASCOPYRUM SMITHII - ELEOCHARIS SPP. HERBACEOUS VEGETATION

Common Name:

Global Rank: G1

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE WETLAND COMMUNITY

Species occurrence data:

This element is comprised of one, the widest and most extensive, of several concentric vegetation zones about a sink or kettle hole on a gently rolling glaciated prairie upland; total area is about 3 acres. The substrate is mineral soil predominantly silt to clay loam in texture, which is seasonally saturated and in non-drought years has standing water for a limited period. This zone is defined by the joint dominance of *Pascopyrum smithii* and *Eleocharis acicularis* and, with the exception of *Alopecurus carolinianus*, only trace amounts of other graminoids. Shrubs are not represented anywhere in the immediate landscape and with the exception of several annuals, *Veronica peregrina*, *Centunculus minimus*, and *Navarretia intertexta*, forbs are represented in only trace amounts. The zone defined by this community grades to a nearly pure sward of *Pascopyrum smithii* toward the upland and toward standing water to a nearly pure stand of *Eleocharis palustris*. Across much of this zone there are 8 to 12 deep "channels" of uncertain origin filled with *E. palustris* (because of their longer period of inundation).

Last observation: 1999-07-12

Size (acres):

General site description:

This site is comprised of a primarily rolling upland landscape wherein are scattered a few shallow basins ringed with emergent vegetation types and at least one spring that has a peatland developed about its source. Two intermittent streams, the West Fork of Porcupine Creek and Dry Fork Creek, drain most of the area and have very narrow, if any, associated riparian stringers. Only two of numerous basin wetlands were examined and found to be dominated by the *Eleocharis acicularis* (needle spike-rush) community type from the wettest portions (almost pure *E. acicularis*) to the drawdown zone where *Pascopyrum smithii* (western wheatgrass) and *E. palustris* (common spikesedge) are important members of the community. In the vicinity of the spring, perhaps where upwelling occurs and peat has accumulated, the wettest community is dominated by densely set tussocks of *Carex aquatilis* (water sedge) and *C. praeegracilis* (clustered field sedge) and *Deschampsia cespitosa* (tufted hairgrass) generally constitute not more than 10% canopy cover. Slightly drier spring-associated vegetation is dominated by the *D. cespitosa* plant association wherein *Juncus balticus* (Baltic rush) is an important to co-dominant species. The uplands, especially where silty soils predominate, are dominated by a relatively unbroken expanse of the *Stipa curtisetia* / [*Elymus lanceolatus*] (Northern porcupine grass - thickspike wheatgrass) plant association: sites with sandier soils tend to support *Stipa comata* (needle-and-thread)-dominated communities. This landscape harbors by far the most extensive and highest quality example of the *S. curtisetia* - [*E. lanceolatus*] association in the U. S. Though traversed by a limited road system and grazed by domestic stock, the whole Dry Creek Landscape is sufficiently intact and extensive that it constitutes the single best example of what was, before for the adjacent terrain had been put under the plow, a prevailing and highly productive landscape mosaic.

Land owner/manager:

STATE LAND - UNDESIGNATED

Comments:

Though there is a component of increaser species present (both graminoids and forbs); this element can be controlled to a limited extent by regulating grazing to particular periods, such as well after the summer draw-down when many of these species have already shed seed. Certainly permitting too early access will only encourage soil hummocking, whereas delaying access may favor the annual/biennial grasses *Alopecurus caroliniensis* and *Hordeum jubatum*.

Information source:

Survey site name: DRY FORK CREEK LANDSCAPE

County: VALLEY

USGS quadrangle: DRY FORK CREEK

06666n.eor

MTNHP ref. CEG001581\*001\*MT



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Location: S  
Elevation (ft): 2850

## Location:

This community is within the Dry Fork Creek drainage about 26 air miles due north from Glasgow, Montana. From the junction of State Highways 24 and 2, take Route 24 approximately 24.3 mi. to the north to a dirt road that exits to the west. This dirt road, which lies at the intersection of sections 7, 8, 17, and 18 in Township 32 N, then immediately bears due north. Follow this road about 0.7 miles north, then walk due west about 300 paces which should place one at the north end of a small natural pond that lies within a gently rolling grassland landscape.

Township\Range:      Section:      TRS comments:

032N040E

87

*The location description above would place this site in Section 7, T32N, R40E, This section is application # 5027 on the March 5, 2002 MT Oil and Gas Lease Sale. The stream, wetland, prairie pothole, etc. 100-ft. buffer stipulation will be utilized on this tract.*



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: ERIOGONUM PAUCIFLORUM - GUTIERREZIA SAROTHRAE BADLANDS SPARSE VEGET

Common Name:

Global Rank: G?

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: Sample point, representative badland community

#### Species occurrence data:

The *Eriogonum pauciflorum* - *Gutierrezia sarothrae* Sparse Vegetation association occurs as separate small patches, from somewhat less than 0.1 acres to over 2 acres, in close proximity one to another so that a matrix is created across the alluvial flats on which they are found. The intervening vegetation types are predominantly *Pascopyrum smithii* - *Bouteloua gracilis* on deeper, less erosive soils, *P. smithii* clay pan, and the *Puccinellia nuttalliana* association on lower areas with salt efflorescence. The substrate is primarily shale-derived alluvium with a veneer of glacial drift that either has been deposited in place from glacial steams or derived from adjacent uplands with subsequent erosion. The extremely erosive substrate shows the effects of both wind and water with much pedicelling of woody plants. Copious amounts (>60% in places) of surface gravels and exposed soil (10-20%) also testifies to the deflating effects of erosion; a seemingly contradictory observation is the high coverage of lichens, which can reach 30 to 40%. The vegetation is sparse with mostly less than 10% canopy cover but values range as high as 20%. Four dwarf-shrubs, *Eriogonum pauciflorum*, *Chrysothamnus nauseosus*, *Atriplex gardneri*, and *Gutierrezia sarothrae*, are regularly present, though only *E. pauciflorum* was observed to have more than 5% cover. Two grasses, *Puccinellia nuttalliana* and *Distichlis spicata*, are consistently present in low amounts, generally less than 10%. The forb component is depauperate in cover and species richness with only *Hymenoxys richardsonii*, *Iva axillaris* and *Thermopsis rhombifolia* being found in greater than trace amounts.

Last observation: 1999-07-25

Size (acres):

#### General site description:

This site is characterized as a badlands environment wherein erosion, predominantly by water but also via wind, is the dominant landscape process. Intricate stream-dissection has resulted in topography distinguished by a fine drainage network, high drainage densities and short, steep slopes with narrow interfluvies. At least on the eastern, southern and northern perimeter of the area there exists a relatively distinct "rim" or shallow escarpment. Looking westward from the eastern rim the badlands seem contained in a broad, shallow, gently tilted to the southwest bowl, from the floor of which project in intricate profusion, hillocks, narrow ridges and bentonitic ballons, all separated by narrow alluvial flats. At the badland's downstream end streams have coalesced and broader alluvial flats result. The prevailing aspect is one of an intricate patchwork of raw dull gray exposed substrate and patches of vegetation, with the denser and more extensive vegetation confined to north- and east-facing exposures. Due to extreme topographic dissection there are no matrix communities; most communities are small patch and even fragmentary. It is from this geologically unique area that a number of new communities have been provisionally described, including a number dominated by *Juniperus horizontalis* (creeping juniper) that appear to function as primary colonizers of eroding positions, mostly protected slopes; included here are *J. horizontalis* / *Elymus lanceolatus* - *Nassella viridula* [creeping juniper / thickspike wheatgrass - green needlegrass], *J. horizontalis* / *Stipa curtisetia* - *E. lanceolatus* [creeping juniper / porcupine grass - thickspike wheatgrass]; typically occupying colluvial and alluvial settings are *J. horizontalis* / *Calamovilfa longifolia* [creeping juniper / prairie sandreed], *J. horizontalis* / *Juncus balticus* [creeping juniper / Baltic rush], and *J. horizontalis* / *Elymus trachycaulus* [creeping juniper / bearded wheatgrass]; drier exposures with high erosion rates exhibit *J. horizontalis* / *Schizachyrium scoparium* [creeping juniper / little bluestem]. Found tucked into protected positions, drainage heads, swales and toeslopes receiving subsurface moisture are small patch *Shepherdia argentea* (buffaloberry) communities; these communities are magnets for wildlife (and perhaps consequently also foci for *Euphorbia esula* [leafy spurge] populations). The riparian and floodplain environments support communities most resembling those of less extreme landscapes; here are found *Deschampsia cespitosa* (tufted hairgrass)- and *Juncus balticus* (Baltic rush)-dominated sites with *Pascopyrum smithii* (western wheatgrass) abundant on the first terrace above intermittent streams. On salt-affected sites the *Pascopyrum smithii* - *Distichlis stricta* [western wheatgrass - inland saltgrass] association is common. Other sites, often on or influenced by bentonite, support sparse vegetation (<10 % cover) dominated by *Artemisia longifolia* (longleaf sagewort) or *Atriplex gardneri* / *Atriplex suckleyi* [Gardner's saltsage / rillscale] and acid shales also tend to support depauperate communities often characterized by the *Eriogonum pauciflorum* - *Gutierrezia sarothrae* [few flowered wild buckwheat - broom snakeweed] association.

Land owner/manager:





Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

BLM: MALTA FIELD OFFICE

Comments:

Though this is a sparse vegetation site, it still could be adversely impacted by grazing and especially by off road vehicle traffic of any sort, which would accelerate the already high erosion rates following vegetation destruction.

Information source:

Survey site name: BITTER CREEK BADLANDS LANDSCAPE

County: VALLEY

USGS quadrangle: GAY DAM

Section: S

Elevation (ft): 2680

Location:

The Bitter Creek Badland is located in northwestern Valley County, north-northwest of Glasgow, MT. From Glasgow take State Highway 2 nineteen and one miles west to the intersection with Vandalia and Britsch Roads (Valley County Rds.). Take Britsch Rd. northward for approximately 12.5 miles to the intersection with county heading westerly toward Ada and Abey Reservoirs, placing one at the southern extent of the Bitter Creek Badland. Continue north-northeast on Britsch Rd. to its intersection with Trail #7, taking the west branch and descend the escarpment and proceed 2.7 miles west. The eroded benchlands badland where this community is found lies south of the road and north of Eagle Creek.

Township\Range:      Section:      TRS comments:

033N038E

7

*Application # 5029 T33N, R38E, Sec. 16, All, is located about 1-3 miles from this site. This tract does not appear to have badlands topography. However, this tract adjoins the Bitter Creek Wilderness Study Area. Therefore, the sensitive areas stipulation (F4) will be utilized on this tract's lease.*





8Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: ELYMUS LANCEOLATUS - STIPA COMATA NORTHERN GREAT PLAINS HERBACEOUS

Common Name:

Global Rank: G?

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE UPLAND COMMUNITY

Species occurrence data:

This grassland is a large patch community associated with a ridge, both crest and shoulder portions and all convex or shedding environments in proximity to the ridge; it occurs on all aspects, except those facing north through northeast. On cooler exposures or more protected exposures Stipa curtisetata- or Elymus trachycaulus-dominated communities are found. Soils with a silt loam texture are developed from a thin veneer of glacial drift over shale. Artemisia frigida and Gutierrezia sarothrae, the only shrubs present, have less than 10% combined cover. Elymus lanceolatus provides the dominant aspect ranging in cover from 10 to 40% with Stipa comata and Bouteloua gracilis being subdominants. Other graminoids consistently present across this community are Koeleria macrantha, Carex stenophylla and Stipa curtisetata; it is somewhat anomalous to see S. curtisetata in such a relatively dry site. Psoralea argophylla, Phlox hoodii, and Vicia americana are the forbs with the highest cover values and also the most consistent distribution across this large patch.

Last observation: 2000-08-18

Size (acres):

General site description:

This site is characterized as primarily a rolling upland landscape through which three primary, though intermittent, streams have cut to give a northwest to southeast lineation to the low ridge system. There is generally about 200 to 250 feet of relief between the floodplains and the ridge crests. All of the landscape has been glaciated and thinly mantled with till, which does not seem to appreciably change the character of the soil derived predominantly from shale and siltstone parent material. The prominent soil series include Phillips, Scobey, Elloam, Sunburst and Thoeny; all are fine-textured and montmorillonitic reflecting their sedimentary origins and represent predominantly Aridisols with Mollisols and Entisols occupying much less area. Upland vegetation is preponderantly Elymus lanceolatus - Stipa comata (thickspike wheatgrass - needle-and-thread), an association found on all exposures except those sufficiently steep that the slope by aspect interaction is expressed in a different type. Northerly or protected exposures are typified by Stipa curtisetata - (E. lanceolatus) (porcupine grass - thickspike wheatgrass), E. lanceolatus - Nassella viridula (thickspike wheatgrass - green needlegrass) and most notably by Elymus trachycaulus (bearded wheatgrass)-dominated associations. On lowlands with heavier-textured soils (floodplains and terraces) occur a variety of Pascopyrum smithii (western wheatgrass)- or Elymus lanceolatus-dominated associations foremost among which are P. smithii and P. smithii - [Carex stenophylla] (western wheatgrass - [narrowleaved sedge] Herbaceous Vegetation. On stream terraces the most common shrub is Artemisia cana (silver sagebrush) with an undergrowth dominated by either E. lanceolatus or P. smithii with Nassella viridula ranging from an important component to non-existent, largely depending in part on grazing intensities. Juniperus horizontalis (horizontal or creeping juniper) seems to be rather strongly associated with erosive slopes or flats. It is found in combination with a number of diagnostic graminoids but the most commonly expressed associations in this landscape are J. horizontalis / Schizachyrium scoparium (creeping juniper / little bluestem) and J. horizontalis / Elymus trachycaulus (creeping juniper / bearded wheatgrass). Schizachyrium scoparium - Carex inops is also a common community on erosive substrates. Eroding slopes and flats that weather to an acidic reaction support sparse vegetation with Eriogonum pauciflorum - Gutierrezia sarothrae (few-flowered wild buckwheat - broom snakeweed) Badlands Sparse Vegetation and Artemisia longifolia (longleaf sage) Sparse Vegetation constituting the characteristic associations.

Land owner/manager:

PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

This community is part of a dynamic system and should be maintained as such. Though seasonal cattle grazing is part of the system it appears to be in accord with rangeland health prescriptions, only the high cover of Selaginella densa signals some out of character expression.

Information source:



Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Survey site name: CROW CREEK LANDSCAPE

County: VALLEY

USGS quadrangle: KERR COW CAMP

Section: S

Elevation (ft): 3090

Location:

The area is most conveniently accessed by heading north on paved State Route 537, which becomes an unpaved county road (Hinsdale North Rd.), and following it approximately 28 miles to the junction with Duncan Rd., which bears north-northwest up the main branch of Crow Creek. Continue up Duncan Rd. to Target Reservoir and to the first fenceline past the reservoir. At the fork in the road immediately north of the fenceline take the left fork (northwest trending) for 0.65 miles to crest of the ridge. Park and walk due west and cross the first notch (or major swale) and continue to the next ridge crest; the element encompasses the ridge crest.

Township\Range:      Section:      TRS comments:

033N038E

10

*This unranked site on private land is outside the Bitter Creek WSA.*

*Application #5029 T33N, R38E, Sec. 16, All, adjoins corners with Section 10, so portions of Section 16 are a fraction to 2 miles away from the land in Section 10. Section 16 has a history of surface leasing from the 1920's to present. The Northwest corner of Section 16, T33N, R38E adjoins the Bitter Creek WSA. Therefore, the sensitive areas stipulation (F-1) will be utilized on this tract's lease.*





Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: CAREX PRAEGRACILIS HERBACEOUS VEGETATION

Common Name:

Global Rank: G3

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE WETLAND COMMUNITY

Species occurrence data:

This example of the *Carex praegracilis* association is comparatively extensive, for what is virtually always a small patch or linearly arrayed type, occurring as concentric zone about the standing water portion of the wetland. In this occurrence it is associated with that portion of a spring complex occurring in a shallow concavity which is subirrigated and seasonally, and perhaps continually, saturated. Soils are both mottled and gleyed to the surface. Channels are present and probably contain water into mid-summer in a normal precipitation year (year visited relatively dry, channels obviously contained water relatively recently). This association graded to a *Carex aquatilis* type with standing water and to a *Deschampsia cespitosa* community of better drained sites. Following the wetland vegetation classification of Hansen et al. (1995) for Montana this site keys to, with more than 50% canopy cover of *Deschampsia cespitosa*, the habitat type (h. t., i.e. climax plant association) of the same name. However, *Carex praegracilis* has at least 30% canopy cover across the community and in places *Calamagrostis stricta* rivals *C. praegracilis* in cover. The abundance of these two graminoids argues for a continuously wetter environment than expressed by *D. cespitosa* dominance. Hansen et al. (1995) cite only mottles being present for the *D. cespitosa* h.t., whereas gleying was the dominant feature of this site's soil column. Total forb cover ranges upward of 10%, comprised of characteristic wetland species including *Potentilla palustris*, *Polygonum amphibium*, *Triglochin maritima*, *Aster falcatus* and *Viola nephrophylla*. There were no shrubs present in any portion of the wetland.

Last observation: 1999-07-26

Size (acres):

General site description:

This site is comprised of a primarily rolling upland landscape wherein are scattered a few shallow basins ringed with emergent vegetation types and at least one spring that has a peatland developed about its source. Two intermittent streams, the West Fork of Porcupine Creek and Dry Fork Creek, drain most of the area and have very narrow, if any, associated riparian stringers. Only two of numerous basin wetlands were examined and found to be dominated by the *Eleocharis acicularis* (needle spike-rush) community type from the wettest portions (almost pure *E. acicularis*) to the drawdown zone where *Pascopyrum smithii* (western wheatgrass) and *E. palustris* (common spikeweed) are important members of the community. In the vicinity of the spring, perhaps where upwelling occurs and peat has accumulated, the wettest community is dominated by densely set tussocks of *Carex aquatilis* (water sedge) and *C. praegracilis* (clustered field sedge) and *Deschampsia cespitosa* (tufted hairgrass) generally constitute not more than 10% canopy cover. Slightly drier spring-associated vegetation is dominated by the *D. cespitosa* plant association wherein *Juncus balticus* (Baltic rush) is an important to co-dominant species. The uplands, especially where silty soils predominate, are dominated by a relatively unbroken expanse of the *Stipa curisetia* / [*Elymus lanceolatus*] (Northern porcupine grass - thickspike wheatgrass) plant association: sites with sandier soils tend to support *Stipa comata* (needle-and-thread)-dominated communities. This landscape harbors by far the most extensive and highest quality example of the *S. curisetia* - [*E. lanceolatus*] association in the U. S. Though traversed by a limited road system and grazed by domestic stock, the whole Dry Creek Landscape is sufficiently intact and extensive that it constitutes the single best example of what was, before for the adjacent terrain had been put under the plow, a prevailing and highly productive landscape mosaic.

Land owner/manager:

STATE LAND - UNDESIGNATED

Comments:

This site could easily be degraded with increased or even continued cattle use; at this point they have created a moderately hummocked condition (except the side nearest water development which is hummocked to the extent that vegetation is trampled out of existence). Ideally this wetland should be fenced to protect its values because even turning cattle onto this pasture in late summer will result in continued hummocking, it will just range further into the wetland's interior. The grazing preference of cattle will also favor *Juncus balticus* and *Hordeum brachyantherum* (which are present with less than 10% canopy cover) at the expense of the native graminoids with the end result being a *J. balticus*-dominated wetland of which there are a huge abundance.





8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Information source:

Survey site name: DRY FORK CREEK LANDSCAPE

County: VALLEY

SGS quadrangle: DRY FORK CREEK

Precision: S

Elevation (ft): 2770

Location:

This community is within the Dry Fork Creek drainage about 27 air miles due north from Glasgow, Montana. From the junction of State Highways 24 and 2, take Route 24 approximately 24.3 mi. to the north to a dirt road that exits to the west. This dirt road, which lies at the intersection of sections 7, 8, 17, and 18 in Township 32 N, then immediately bears due north. Follow this road about 3.8 north. From a light rise in the road the deep green of a moderately sized wetland can be seen about 200 m in a westerly direction. The site is in the northwestern quarter/quarter/quarter of the southwestern quarter/quarter of the southwestern quarter of Section 24 (T33N, R39E).

Township\Range:	Section:	TRS comments:
033N039E	24	NW4SW4SW4

Application Number 5044 T33N, R39E, Section 26, All, is  $\sim 1/8$  to  $\sim 1/4$  mile(s) away from this site. Other sections on the March 5, 2002 MT Oil and Gas Lease sale are farther away. The stream, wetland, etc. buffer stipulation will be utilized on application # 5044 and other tracts in Valley County.

- No impact -



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: CAREX AQUATILIS HERBACEOUS VEGETATION

Common Name:

Global Rank: G5

Forest Service status:

State Rank: S4

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE WETLAND COMMUNITY

Species occurrence data:

This example of the *Carex aquatilis* association is comprised of several small wetland patches totaling less than two acres, that is at least seasonally inundated and even in the driest years is probably continuously saturated. At the time of sampling water depth in the channels between hummocks was 2 to 6 inches deep and occupied at least 30% of the community's surface area. Although the plant community composition appeared rather homogeneous, on the basis of substrate type it varied from marsh to fen. The substrate varied from primarily mineral soils that were gleyed (and mottled) to the surface to a portion more toward the center of the wetland that appeared to be predominantly organic (partially decomposed *C. aquatilis* shoots and roots). This community, that represents the wettest portion of the wetland, was surrounded by the *Carex praegracilis* association, that typifies a water regime in which seasonal inundation is probably not a factor. There were scattered *Scirpus maritimus* plants and even small clusters in what were ostensibly the deepest portion of the wetland but they were insufficient to constitute a community. *Carex aquatilis* approaches 100% canopy cover with *C. praegracilis*, *Calamagrostis stricta*, and *Deschampsia cespitosa* the only other graminoids of importance. The forb component is very reduced compared to the next drier zone with only *Viola nephrophylla* present in more than trace amounts. A *Lemna* spp. was abundant in the standing channel water.

Last observation: 1999-07-26

Size (acres):

General site description:

This site is comprised of a primarily rolling upland landscape wherein are scattered a few shallow basins ringed with emergent vegetation types and at least one spring that has a peatland developed about its source. Two intermittent streams, the West Fork of Porcupine Creek and Dry Fork Creek, drain most of the area and have very narrow, if any, associated riparian stringers. Only two of numerous basin wetlands were examined and found to be dominated by the *Eleocharis acicularis* (needle spike-rush) community type from the wettest portions (almost pure *E. acicularis*) to the drawdown zone where *Pascopyrum smithii* (western wheatgrass) and *E. palustris* (common spikesedge) are important members of the community. In the vicinity of the spring, perhaps where upwelling occurs and peat has accumulated, the wettest community is dominated by densely set tussocks of *Carex aquatilis* (water sedge) and *C. praegracilis* (clustered field sedge) and *Deschampsia cespitosa* (tufted hairgrass) generally constitute not more than 10% canopy cover. Slightly drier spring-associated vegetation is dominated by the *D. cespitosa* plant association wherein *Juncus balticus* (Baltic rush) is an important to co-dominant species. The uplands, especially where silty soils predominate, are dominated by a relatively unbroken expanse of the *Stipa curisetata* / [*Elymus lanceolatus*] (Northern porcupine grass - thickspike wheatgrass) plant association: sites with sandier soils tend to support *Stipa comata* (needle-and-thread)-dominated communities. This landscape harbors by far the most extensive and highest quality example of the *S. curisetata* - [*E. lanceolatus*] association in the U. S. Though traversed by a limited road system and grazed by domestic stock, the whole Dry Creek Landscape is sufficiently intact and extensive that it constitutes the single best example of what was, before for the adjacent terrain had been put under the plow, a prevailing and highly productive landscape mosaic.

Land owner/manager:

STATE LAND - UNDESIGNATED

Comments:

This site could easily be degraded with increased or even continued cattle use; at this point they have created a moderately hummocked condition (except the side nearest water development which is hummocked to the extent that vegetation is trampled out of existence). Ideally this wetland should be fenced to protect its values because even turning cattle onto this pasture in late summer will result in continued hummocking, it will just range further into the wetland's interior. The grazing preference of cattle will also favor *Juncus balticus* and *Hordeum brachyantherum* (which are present with less than 5% canopy cover) at the expense of the native graminoids with the end result being the ubiquitous *J. balticus*-dominated wetland.

Information source:



28-Dec-01

## Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Survey site name: DRY FORK CREEK LANDSCAPE

County: VALLEY

USGS quadrangle: DRY FORK CREEK

Precision: S

Elevation (ft): 2770

## Location:

This community is within the Dry Fork Creek drainage about 27 air miles due north from Glasgow, Montana. From the junction of State Highways 24 and 2, take Route 24 approximately 24.3 mi. to the north to a dirt road that exits to the west. This dirt road, which lies at the intersection of sections 7, 8, 17, and 18 in Township 32 N, then immediately bears due north. Follow this road about 3.8 north. From a light rise in the road the deep green of a moderately sized wetland can be seen about 200 m in a westerly direction. The site is in the northwestern quarter/quarter/quarter of the southwestern quarter/quarter of the southwestern quarter of Section 24 (T33N, R39E).

Township\Range:	Section:	TRS comments:
033N039E	24	NW4SW4SW4

Application number 5044 T33N, R39E, Section 26, All is  
~ 1/8 to 1 1/4 mile(s) away from this site. Other sections on the March 5, 2002 MT  
Oil and Gas Lease sale are farther away. The stream, wetland, etc.  
buffer stipulation will be utilized on application #5044 and other tracts  
in Valley County. This site in Section 24 is ranked (G5, S4).

- No impact -





8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: STIPA CURTISETA HERBACEOUS VEGETATION

Common Name:

Global Rank: G?

Forest Service status:

State Rank: S?

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type: SAMPLE POINT, REPRESENTATIVE UPLAND COMMUNITY

Species occurrence data:

This *Stipa curtiseti* - [*Elymus lanceolatus*] grassland community occurs as large patches to a matrix expression usually occupying, in this gently rolling landscape, the side slopes and concave positions. Soils are predominantly well- to moderately-drained clay and silt loams derived from a thin mantle of glacial drift over sedimentary formations. Grass density and composition varies to some degree with position with the concavities exhibiting nearly 100 % grass and forb canopy cover. *Stipa curtiseti* is the dominant and diagnostic grass with canopy cover often approaching 60%; *Elymus lanceolatus* and *Carex stenophylla* are consistent subdominants and *Nassella viridula* ranges from trace amounts on upper slopes to approaching a dominant in swales, providing grazing has prudent. The combined canopy cover of forbs is usually less than 5% though the diversity ranges from around twelve to more than 20 species in any 1/10 acre area. Forbs with highest constancy include *Vicia americana*, *Zigadenus venenosus*, *Psoralea argophylla*, and *Astragalus agrestis*. The shrub component is negligible, confined to scattered *Artemisia frigida*.

Last observation: 1999-07-27

Size (acres):

General site description:

This site is comprised of a primarily rolling upland landscape wherein are scattered a few shallow basins ringed with emergent vegetation types and at least one spring that has a peatland developed about its source. Two intermittent streams, the West Fork of Porcupine Creek and Dry Fork Creek, drain most of the area and have very narrow, if any, associated riparian stringers. Only two of numerous basin wetlands were examined and found to be dominated by the *Eleocharis acicularis* (needle spike-rush) community type from the wettest portions (almost pure *E. acicularis*) to the drawdown zone where *Pascopyrum smithii* (western wheatgrass) and *E. palustris* (common spikeweed) are important members of the community. In the vicinity of the spring, perhaps where upwelling occurs and peat has accumulated, the wettest community is dominated by densely set tussocks of *Carex aquatilis* (water sedge) and *C. praegracilis* (clustered field sedge) and *Deschampsia cespitosa* (tufted hairgrass) generally constitute not more than 10% canopy cover. Slightly drier spring-associated vegetation is dominated by the *D. cespitosa* plant association wherein *Juncus balticus* (Baltic rush) is an important to co-dominant species. The uplands, especially where silty soils predominate, are dominated by a relatively unbroken expanse of the *Stipa curtiseti* / [*Elymus lanceolatus*] (Northern porcupine grass - thickspike wheatgrass) plant association: sites with sandier soils tend to support *Stipa comata* (needle-and-thread)-dominated communities. This landscape harbors by far the most extensive and highest quality example of the *S. curtiseti* - [*E. lanceolatus*] association in the U. S. Though traversed by a limited road system and grazed by domestic stock, the whole Dry Creek Landscape is sufficiently intact and extensive that it constitutes the single best example of what was, before for the adjacent terrain had been put under the plow, a prevailing and highly productive landscape mosaic.

Land owner/manager:

STATE LAND - UNDESIGNATED

*The proposed action (oil & gas leasing) does not affect grazing or agricultural practices on T33N, R39E, Section 30.*

Comments:

This community and the landscape in which it occurs need to have documented what the effects of grazing appear to be on this community that is relatively rare within the US portion of the Northern Great Plains

Information source:

*Grazing and its results are beyond the scope of this oil and gas leasing proposal.*

Survey site name: DRY FORK CREEK LANDSCAPE

County: VALLEY

SGS quadrangle: FORSMAN RESERVOIR

Section: S

p6666n.eor

MTNHP ref. CEGLMTHP42\*003\*M





Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Elevation (ft): 2940

Location:

This community is within the Dry Fork Creek drainage about 26 air miles due north from Glasgow, Montana. From the junction of State Highways 24 and 2, take Route 24 approximately 24.3 mi. to the north to a dirt road that exits to the west. This dirt road, which lies at the intersection of sections 7, 8, 17, and 18 in Township 32 N, then immediately bears due north. Follow this road about 0.7 miles north, then walk to the west about 200 paces which should place one slightly west of a small natural pond to the south and within a gently rolling grassland landscape.

Township\Range:	Section:	TRS comments:
033N039E	30	SE4SW4NE4

This vegetation is not ranked globally or for the state as rare or T&E. This tract is not within or adjoining the Bitter Creek WSA. It is school trust land, which is managed per the trust mandate to generate revenue for the trust. There is a history of surface leasing from the 1920's to present on this section. The proposed oil and gas leasing does not affect grazing or agricultural practices on the tract. An access road is present in the western portion of the section.

From the species occurrence data, this vegetation appears abundant in the area. The stream, wetlands, etc. buffer stipulation will be utilized on this tract for water and associated wetland concerns. The basic stipulations placed on all MT oil and gas leases allow for site-specific review of operating plans to be carried out before activity is allowed.

—No impact—



8-Dec-01

Montana Natural Heritage Program

Species of Special Concern: T32-33N, R38-39E, and, T31N, R40E, Valley County  
APP# 5019-5053

Scientific Name: STERNA HIRUNDO

Common Name: COMMON TERN

Global Rank: G5

Forest Service status:

State Rank: S3B.SZN

USFWS Endangered Species Act Status:

BLM Status:

Occurrence Type:

Species occurrence data:

12 ADULTS; PROBABLY BREEDING.

Last observation: 1996-07-24

Size (acres):

General site description:

SITE IS IN A PERMANENT, MAN-MADE RESERVOIR OVER SILT/MUD SUBSTRATE. EMERGENT VEGETATION IN ORDER OF ABUNDANCE IS CATTAIL, POLYGONUM, SEDGE, BULRUSH, AND RUSH. SHALLOWS PRESENT ON THE NORTH SHORELINE AND MORE THAN 50% OF THE RESERVOIR MARGIN IS WITH EMERGENT VEGETATION.

Land owner/manager:

BLM: GLASGOW FIELD STATION; PRIVATELY OWNED LAND (INDIVIDUAL OR CORPORATE)

Comments:

THE RESERVOIR IS ACTUALLY LARGER THAN IS SHOWN ON THE MAP. THE WARDS DAM WAS REDONE IN 1994.

Information source:

REICHEL, JAMES D. [DECEASED] FORMER ZOOLOGIST, MONTANA NATURAL HERITAGE PROGRAM, 1515 EAST SIXTH AVENUE, P.O. BOX 201800, HELENA, MT 59620-1800. (406) 444-3009.

Survey site name: WARDS RESERVOIR

County: VALLEY

USGS quadrangle: WARDS DAM

Precision: M

Elevation (ft): 2930

Location:

FROM TOWN OF OPHEIM, GO SOUTH ON HWY 24 CA. 13 MILES TO TOWN OF BAYLOR. THEN TURN EAST ON GRAVEL ROAD FOR CA. 7 MILES. WARDS RESERVOIR IS NORTH OF THIS ROAD.

Township\Range:

Section:

TRS comments:

034N039E

28

SW4

Application Numbers 5031 T33N R39E Sec.3 All

5032 T33N R39E Sec.4 All

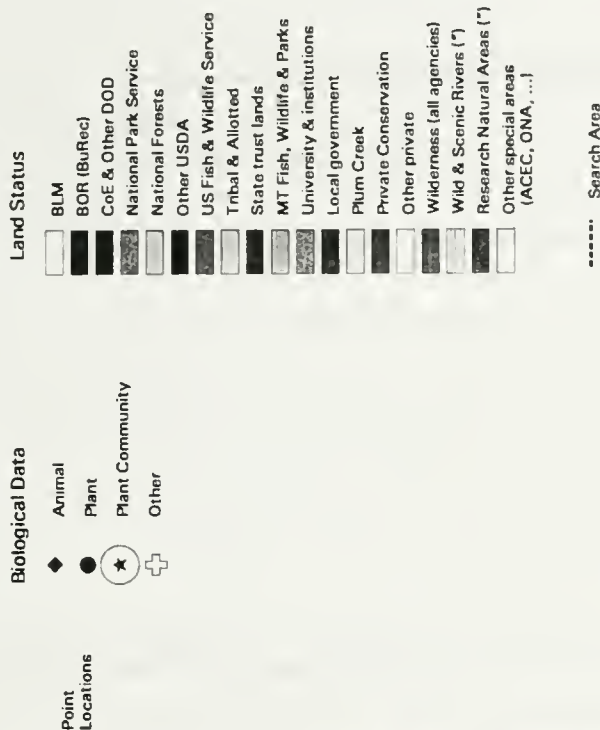
5033 T33N R39E Sec.5 SW4, E2 and

5034 T33N R39E Sec.6 Lots 1 thru 6, NE4

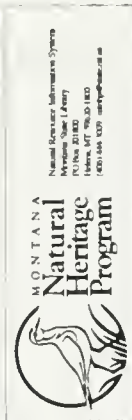
are approximately 1-2 miles away from this site. The stream, pond reservoir, wetland, etc. buffer stipulation will be utilized on these tracts for water concerns and would cover wildlife present in this habitat.



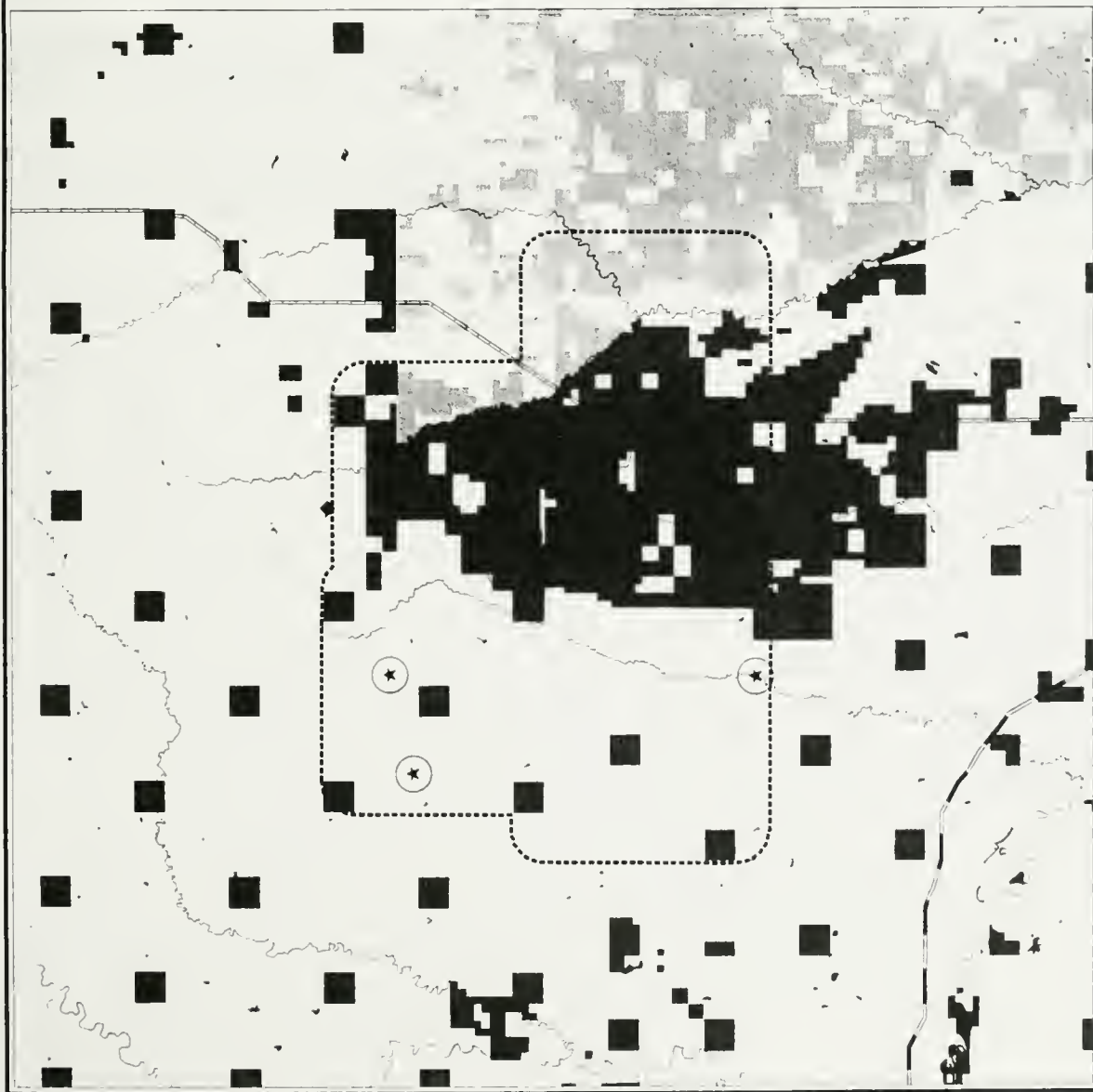
# Montana Species of Concern T32-33N, R38-39E, and, T32N, R40E Valley County, APP# 5019-5053



- Species locations depicted outside the search area have imprecisely-known locations and may actually occur within the search area.
- Not all legend items may occur on map.
- Features shown on this map do not imply public access to any lands.
- Refer to accompanying documentation for full explanation of map features.



Request nhp6666n  
December 28, 2001







Kinley, Teresa

---

**From:** Kellogg, Casey  
**Sent:** Thursday, January 03, 2002 1:37 PM  
**To:** Kinley, Teresa  
**Cc:** Rooney, Clive  
**Subject:** RE: March 5, 2002, MT Oil and Gas Lease Sale

Teresa,

My comments are in the attached memo.



March.doc

-----Original Message-----

**From:** Kinley, Teresa  
**Sent:** Thursday, December 27, 2001 2:31 PM  
**To:** Roberts, Craig; Smith, Barny; Kellogg, Casey; Richards, Hoyt  
**Cc:** Rooney, Clive  
**Subject:** March 5, 2002, MT Oil and Gas Lease Sale  
**Importance:** High

I am sending the tract list and my request for comments letter as attached files in Word 2000 format. Tract list is a Word file, FIELD302.doc and it is in plain text, Courier New font, 8 or 10 point size. I have also attached an additional Word 2000 file which includes a general location map for informational purposes.

As noted in the attached letter, the deadline for comments is January 23, 2002. You do not need to include tracts outside your area in the comments that you return. Comments can be returned by postal mail or electronic mail, however electronic mail is preferred. Please contact me at (406) 444-2074 if you have questions. Thank you for your assistance.

<< File: FIELD302.doc >> << File: araoffice1.doc >> << File: MARMAP02.doc >>



January 3, 2002

MEMORANDUM

TO: Teresa Kinley, Hydro-Geologist, MMB  
FROM: Casey Kellogg, Havre Unit Manager, NELO  
RE: March 5, 2002 Oil & Gas Lease Sale  
Hill County

I have reviewed the tract of land associated with this proposed Oil & Gas lease sale. I included comments for the pieces of land that are located within the Havre Unit. There was only one for me to comment on this time.

I recommend proceeding with the standard lease sale on the tract of land reviewed in this MEMO.

STATE OF MONTANA  
OIL & GAS LEASE SALE - MARCH 5, 2002

HYDROLOGIST'S REPORT

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
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LESSOR: DEPT OF NATURAL RESOURCES & CONSERVATION

HILL (NELO-H, FWP-6)

5005 Cottonwood	36.N	13.E	36	ALL		640.00
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This tract contains 640 acres of native rangeland. There is a reservoir in the NW4 and two intermittent streams on this tract. There are no other special features.

*The stream, reservoir, etc. buffer stipulation will be utilized on this lease.*



DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION  
NORTHEASTERN LAND OFFICE

JAN 04 2002

D.N.R.C.



(406) 228-2430 Telephone  
(406) 228-2439 FAX  
co6593@state.mt.us  
Hrichards@state.mt.us

GLASGOW UNIT OFFICE  
PO BOX 1007  
224 6 STREET SOUTH  
GLASGOW, MONTANA 59230-1007

STATE OF MONTANA

December 31, 2001

MEMORANDUM

TO: Teresa Kinley, Hydrologist/Geologist, Minerals Management Bureau

FR: Randy Dirkson, Land Use Specialist, Glasgow Unit Office

RE: March 5, 2002 Montana Oil and Gas Lease Sale.

Attached are the comments for the March 5, 2002 Montana Oil and Gas Lease Sale from the Glasgow Unit Office. Should you have any questions, please contact the Glasgow Unit Office personnel.

C: NELO



STATE OF MONTANA  
OIL & GAS LEASE SALE - MARCH 5, 2002

HYDROLOGIST'S REPORT

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
LESSOR: DEPT OF NATURAL RESOURCES & CONSERVATION						
CARBON (SLO, FWP-5)						
5054	Boyd	4.S	21.E	36	LOTS 1, 2, 3, 4, SW4NE4, E2SW4, W2SE4	358.00
5055	Boyd	5.S	22.E	16	ALL	640.00
DANIELS (NELO-G, FWP-6)						
5011	West Fork NE	34.N	45.E	1	LOTS 3, 4, S2NW4, SW4	320.90
This tract consists of dryland agriculture, conservation reserve program acreage, and native rangeland. Tract has habitat resources for upland birds and other wildlife. <i>The CRP stipulation will be utilized on this tract's lease</i>						
5012	West Fork NE Peerless 4 NW	34.N	46.E	6	LOTS 1 THRU 7, S2NE4, SE4NW4, E2SW4, SE4	629.97
This tract consists of dryland agriculture and conservation reserve program acreage. Tract contains habitat resources for upland birds and wildlife. <i>The CRP stipulation will be utilized on this tract's lease.</i>						
5013	West Fork NE Peerless 4 NW	34.N	46.E	7	LOTS 1, 2, E2NW4, NE4 STATE DOES NOT OWN THE SURFACE IN THE S2NE4.	* 314.71
This tract consists of dryland agriculture. Tract has no resources for wildlife or upland birds.						
DAWSON (ELO, FWP-7)						
5007	Forest Park Hoyt	14.N	55.E	5	YELLOWSTONE RIVERBED AND RELATED ACREAGE	197.90
5008	Hoyt	14.N	55.E	8	YELLOWSTONE RIVERBED AND RELATED ACREAGE	166.00
FERGUS (NELO-L, FWP-4)						
+5018	Loco Ridge	13.N	20.E	16	ALL	640.00
GLACIER (CLO-C, FWP-4)						
5001	Headlight Butte	36.N	5.W	20	SW4SE4	40.00
5002	Glacier Colony Headlight Butte	36.N	5.W	27	SW4NW4, NW4SW4, S2SW4	160.00
5003	Headlight Butte	36.N	5.W	29	S2N2, NW4NE4	200.00





HILL (NELO-H, FWP-6)

5005 Cottonwood 36.N 13.E 36 ALL 640.00

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
LEWIS & CLARK (CLO-H, FWP-4)						
5056	Roberts Mountain	15.N	4.W	32	LOTS 1 THRU 8, E2	624.72
5057	Nilan Reservoir	19.N	7.W	8	N2N2, NE4SW4	200.00
5058	Augusta	19.N	7.W	10	N2NW4 STATE DOES NOT OWN THE SURFACE.	* 80.00
5059	Augusta	19.N	7.W	14	SW4SW4 STATE DOES NOT OWN THE SURFACE.	* 40.00
5060	Augusta	19.N	7.W	15	NW4NW4, SE4SW4, S2SE4 STATE DOES NOT OWN THE SURFACE IN THE SE4SE4.	* 160.00
5061	Augusta Nilan Reservoir	19.N	7.W	16	ALL	640.00
5062	Nilan Reservoir	19.N	7.W	17	E2NE4, SW4NE4, NW4, S2	600.00
5063	Nilan Reservoir	19.N	7.W	18	E2E2	160.00
5064	Nilan Reservoir	19.N	7.W	19	LOTS 1, 2, 3, E2NE4, NW4NE4, E2NW4	321.65
5065	Nilan Reservoir	19.N	7.W	20	NW4NE4, S2NE4, NE4NW4, NE4SW4, N2SE4	280.00
5066	Nilan Reservoir Augusta	19.N	7.W	21	S2SW4	80.00
5067	Augusta	19.N	7.W	23	W2W2 STATE DOES NOT OWN THE SURFACE.	* 160.00
5068	Nilan Reservoir Augusta Bean Lake Steamboat Mountain	19.N	7.W	28	NW4NW4, S2NW4	120.00
5069	Nilan Reservoir Steamboat Mountain	19.N	7.W	29	NE4NE4, NW4 STATE DOES NOT OWN THE SURFACE IN THE NW4.	* 200.00
5070	Nilan Reservoir Steamboat Mountain	19.N	7.W	30	NE4, N2SE4, SW4SE4 STATE DOES NOT OWN THE SURFACE.	* 280.00



5071 Steamboat Mountain	19.N	7.W	32	N2NE4, SE4NE4, NE4NW4	160.00
5072 Bean Lake	19.N	7.W	34	N2N2, NE4SW4, SE4	360.00

PAGE 2

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
5073	Bean Lake	19.N	7.W	36	ALL STATE DOES NOT OWN THE SURFACE.	640.00
5074	Nilan Reservoir Double Falls	19.N	8.W	4	LOTS 3, 4, S2NW4, NW4SE4, S2SE4	282.56
5075	Double Falls	19.N	8.W	5	LOTS 1, 2, 3, 4, S2N2, SE4SW4, SE4, N2SW4	603.40

MCCONE (NELO-G, FWP-6)

5006 Hudiburgh Reservoir	22.N	47.E	20	S2NW4, N2SW4, SE4SW4, S2SE4	280.00
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This tract consists of dryland agriculture. There are no habitat resources for upland birds or wildlife.

PETROLEUM (NELO-L, FWP-4)

5014 Teigen	15.N	25.E	16	N2	320.00
5015 Teigen Little Bear Lake	15.N	25.E	24	SW4	160.00
5016 Teigen	15.N	25.E	29	NW4, S2 STATE DOES NOT OWN THE SURFACE IN THE N2.	480.00
5017 Teigen	15.N	25.E	30	LOTS 1, 2, 3, 4, E2, E2W2 STATE DOES NOT OWN THE SURFACE IN LOTS 1, 2, 3, 4, E2W2, NE4	620.40

RICHLAND (ELO, FWP-6)

5009 Three Buttes Creek West	24.N	55.E	16	ALL	640.00
5010 Three Buttes Creek East	25.N	56.E	36	ALL	640.00

SHERIDAN (NELO-G, FWP-6)

+5004 Plentywood SW	36.N	53.E	36	ALL STATE DOES NOT OWN THE SURFACE IN THE NE4.	640.00
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This tract consists of dryland agriculture and native rangeland. Tract has habitat resources for upland birds and wildlife. Tract has an intermittent stream identified as Plentywood Creek. The creek would provide some habitat resources for waterfowl.

*The stream buffer stipulation will be utilized on this tract's lease.*

*CRP - noted on SE 1/4 - CRP stipulation will be utilized on this tract.*

*Field File*



5019 Dry Fork Creek 32.N 39.E 1 LOTS 1 THRU 12, S2 704.36

This tract consists of native rangeland. It contains some habitat types for wildlife. Tract also contains an ephemeral stream identified as Dry Fork Creek. This creek provides minimal habitat resources for wildlife or upland birds. *The stream buffer stipulation will be utilized on this tract's lease.*

5020 Dry Fork Creek 32.N 39.E 2 LOTS 1, 2, 4, 5, 7 THRU 12, S2 648.51  
Forsman Reservoir

This tract consists of native rangeland. It contains some habitat types for wildlife. Tract also contains an ephemeral stream identified as Dry Fork Creek. This creek provides minimal habitat resources for wildlife or upland birds. *The stream buffer stipulation will be utilized on this tract's lease.*

5021 Forsman Reservoir 32.N 39.E 3 LOTS 1 THRU 12, S2 703.68

This tract consists of native rangeland. It contains some habitat types for wildlife. Tract also contains a livestock reservoir located on the SE4. *The stream, reservoir, etc. buffer stipulation will be utilized on this tract's lease.*

5022 Forsman Reservoir 32.N 39.E 4 LOTS 1 THRU 12, S2 704.76

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some scattered prairie potholes that contain some habitat types for waterfowl. *The stream, prairie potholes, etc. buffer stipulation will be utilized on this tract's lease.*

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
5023	Forsman Reservoir	32.N	39.E	5	LOTS 1, 8, 9, SE4	256.55

This tract consists of native rangeland. It contains habitat types for wildlife. There is a livestock reservoir located on the SE4 of this section. *The reservoir, stream, etc. buffer stipulation will be utilized on this tract's lease.*

5024 Dry Fork Creek 32.N 39.E 11 N2, W2SW4 400.00  
Forsman Reservoir

This tract consists of native rangeland. It contains habitat types for wildlife.

5025 Dry Fork Creek 32.N 39.E 12 ALL 640.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains an ephemeral stream identified as Dry Fork Creek. The creek area provides some habitat resources for waterfowl on limited basis. *The stream, etc. buffer stipulation will be utilized on this tract's lease.*

5026 Dry Fork Creek 32.N 40.E 6 LOTS 3, 4, 5, 6, 11, 12, S2 511.62

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some prairie potholes that contain limited habitat resources for waterfowl. *The stream, prairie pothole, wetland, etc. buffer stipulation will be utilized on this tract's lease.*

5027 Dry Fork Creek 32.N 40.E 7 ALL 640.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also has a livestock reservoir located on the NE4. *The stream, reservoir, etc. buffer stipulation will be utilized on this tract's lease.*

5028 Dry Fork Creek 32.N 40.E 18 E2 320.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also has an ephemeral stream identified as Dry Fork Creek. This site provides some limited habitat resources for waterfowl. *The stream, etc. buffer stipulation will be utilized on this tract's lease.*





5029	Forsman Reservoir	33.N	38.E	16	ALL	640.00
	Gay Dam					
	Laundry Hill					
	Kerr Cow Camp					

This tract consists of native rangeland. It contains habitat types for wildlife.

5030	Forsman Reservoir	33.N	38.E	36	ALL	640.00
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains an intermittent stream identified as Buggy Creek. The SW4 contains a livestock reservoir. *The stream, reservoir, etc. buffer stipulation will be utilized on this Tract's lease.*

5031	Wards Dam	33.N	39.E	3	ALL	640.00
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains an ephemeral stream identified as the West Fork Porcupine Creek. This creek contains some habitat types for waterfowl. Tract has 3 teepee rings on the W2SE4.

*The cultural resources stipulation is utilized on all oil & gas leases. The stream, etc. buffer stipulation will be utilized on this Tract's lease.*

5032	Kerr Cow Camp	33.N	39.E	4	ALL	640.00
	Wards Dam					

This tract consists of native rangeland. It contains habitat types for wildlife.

5033	Kerr Cow Camp	33.N	39.E	5	SW4, E2	480.00
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This tract consists of native rangeland. It contains habitat types for wildlife.

5034	Kerr Cow Camp	33.N	39.E	6	LOTS 1 THRU 6, NE4	392.21
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This consists of native rangeland. It contains habitat types for wildlife.

5035	Forsman Reservoir	33.N	39.E	9	ALL	640.00
	Wards Dam					
	Dry Fork Creek					
	Kerr Cow Camp					

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains a livestock reservoir on the SE4. *The stream, reservoir, etc. buffer stipulation will be utilized on this Tract's lease.*

5036	Dry Fork Creek	33.N	39.E	10	ALL	640.00
	Wards Dam					

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also has an ephemeral stream identified as the West Fork Porcupine Creek. This stream contains some habitat for waterfowl. *The stream, etc. buffer stipulation will be utilized on this tract's lease.*

5037	Dry Fork Creek	33.N	39.E	15	NW4, N2SW4, SE4	400.00
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This tract consists of native rangeland. It contains habitat types for wildlife.

5038	Forsman Reservoir	33.N	39.E	16	N2, SW4, N2SE4	560.00
	Dry Fork Creek					

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains a livestock reservoir on the NW4. *The stream, etc. buffer stipulation will be utilized on this tract's lease.*

5039	Forsman Reservoir	33.N	39.E	17	SE4	160.00
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This tract consists of native rangeland. It contains habitat types for wildlife.



5040 Forsman Reservoir 33.N 39.E 19 LOTS 1, 6, 7, 12, E2 480.00

This tract consists of native rangeland. It contains habitat types for wildlife.

5041 Forsman Reservoir 33.N 39.E 20 ALL 640.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains a developed spring on the SE4SW4. *The stream, spring, etc. buffer stipulation will be utilized on this tract's lease.*

5042 Dry Fork Creek 33.N 39.E 21 W2NW4, SW4, S2SE4 320.00  
Forsman Reservoir

This tract consists of native rangeland. It contains habitat types for wildlife.

5043 Dry Fork Creek 33.N 39.E 22 E2, SE4NW4, E2SW4, SW4SW4 480.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some scattered prairie potholes that would contain some habitat types for waterfowl. *The stream, wetland, prairie pothole, etc. buffer stipulation will be utilized on this tract's lease.*

5044 Dry Fork Creek 33.N 39.E 26 ALL 640.00

This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains a livestock reservoir on the NW4 of tract. *The stream, reservoir, etc. buffer stipulation will be added/ utilized on this tract's lease.*

5045 Dry Fork Creek 33.N 39.E 27 ALL 640.00

This tract consists of native rangeland. It contains habitat types for wildlife.

PAGE 4

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
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5046	Forsman Reservoir Dry Fork Creek	33.N	39.E	28	ALL	640.00
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This tract consists of native rangeland. It contains habitat types for wildlife.

5047	Forsman Reservoir	33.N	39.E	29	ALL	640.00
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains an ephemeral stream identified as Dry Fork Creek. Tract also has a developed livestock water spring and tank located on the NE4. *The stream, reservoir, spring, etc. buffer stipulation will be utilized on this tract's lease.*

5048	Forsman Reservoir	33.N	39.E	30	LOTS 1 THRU 12, E2	791.20
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some scattered prairie pothole areas that contain some limited habitat resources for waterfowl. *The stream, prairie potholes, wetland, etc. buffer stipulation will be utilized on this tract's lease.*

5049	Forsman Reservoir	33.N	39.E	31	LOTS 1 THRU 11, NE4	526.60
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some scattered prairie pothole areas that contain some limited habitat resources for waterfowl. *The stream, wetland, prairie pothole, etc. buffer stipulation will be utilized on this tract's lease.*

5050	Forsman Reservoir	33.N	39.E	32	LOT 4, N2	346.40
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This tract consists of native rangeland. It contains habitat types for wildlife.



5051	Forsman Reservoir	33.N	39.E	33	N2	320.00
	Dry Fork Creek					

This tract consists of native rangeland. It contains habitat types for wildlife. Tract has an undeveloped spring located on the NW4 of tract. *The stream, spring, etc. buffer stipulation will be utilized on this tract's lease.*

5052 Dry Fork Creek	33.N	39.E	34	N2	320.00
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This tract consists of native rangeland. It contains habitat types for wildlife. Tract also contains some prairie pothole areas that contain some limited habitat resources for waterfowl. The stream, prairie pothole, wetland, etc. buffer stipulation will be utilized on this tract's lease.

5053 Dry Fork Creek	33.N	39.E	35	N2	320.00
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This tract consists of native rangeland. It contains habitat types for wildlife.



Wentland, Harold

RECEIVED

To: kinley@state.mt.us

JAN 11 2002

Cc: Satterfield, Jim; Taylor, Graham

D.N.R.C.

Subject: September 5, 2001 State of Montana Oil and Gas Lease Sale

Dear Ms Kinley:

My comments on behalf of Montana Fish, Wildlife & Parks pertain to those sites in your notice located in Blaine (1), Hill (10), Liberty (34), McCone (1), Richland (8) and Roosevelt (1) Counties.

I recommend no surface occupancy or other activity be allowed on any of the sites during the March 1 through July 1 period each year. This will help protect breeding and nesting upland game birds and waterfowl, and fawning and early rearing big game animals. If the activity is to take place exclusively on cropland that is currently under cultivation (not in CRP), the recommendations do not apply.

Thank you for the opportunity to comment.

Sincerely,

Harold J. Wentland  
Wildlife Program Manager, Region 6

*There are no tract-specific comments noted above. However, based on comments from MT-DNRC Field staff and MT. Natural Heritage Program information and review of topographic maps of the areas in FWP Region 6 on the March 5, 2002 Montana Oil and Gas Lease Sale, stipulations have been recommended for utilization on the leases of these tracts.*

*There are:*

*For some reason this did not reach you thru e-mail so am sending by pony express.*

*Thank,*

*Harold J. Wentland*





**Kinley, Teresa**

---

**From:** Moore, Sharon  
**Sent:** Friday, January 11, 2002 1:28 PM  
**To:** Kinley, Teresa  
**Subject:** RE: March 5, 2002, MT Oil and Gas Lease Sale

Hi Teresa,

Thanks for sending me such a short list this time. Attached are my comments. Please let me know if you have any questions.

Have a good weekend.

Sharon



March Oil Sale.doc

-----Original Message-----

**From:** Kinley, Teresa  
**Sent:** Thursday, December 27, 2001 2:45 PM  
**To:** Andrews, Dwayne, Moore, Sharon  
**Subject:** March 5, 2002, MT Oil and Gas Lease Sale  
**Importance:** High

I am sending the tract list and my request for comments letter as attached files in Word 2000 format. Tract list is a Word file, FIELD302.doc and it is in plain text, Courier New font, 8 or 10 point size. I have also attached an additional Word 2000 file which includes a general location map for informational purposes.

As noted in the attached letter, the deadline for comments is January 23, 2002. You do not need to include tracts outside your area in the comments that you return. Comments can be returned by postal mail or electronic mail, however electronic mail is preferred. Please contact me at (406) 444-2074 if you have questions. Thank you for your assistance.

<< File: MARMAP02.doc >> << File: FIELD302.doc >> << File: araoffice1.doc >>



STATE OF MONTANA  
OIL & GAS LEASE SALE - MARCH 5, 2002

HYDROLOGIST'S REPORT

APP#	TOPO MAP	TWP	RGE	SEC	DESCRIPTION	ACRES
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DAWSON (ELO, FWP-7)

5007 Forest Park Hoyt	14.N	55.E	5	YELLOWSTONE RIVERBED AND RELATED ACREAGE	197.90
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At the time that I checked on this tract and the following tract of land the river was up and I was unable to get out to the islands. Livestock can access them at certain times of the year. Leafy spurge is a real problem along this part of the river. Since development would not be on the island itself this limits additional restrictions we would need to place on this lease.

5008 Hoyt	14.N	55.E	8	YELLOWSTONE RIVERBED AND RELATED ACREAGE	166.00
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*The no-surface occupancy of navigable riverbeds and related acreage will be utilized on this tract.*  
See Above. *on this tract.*

RICHLAND (ELO, FWP-6)

5009 Three Buttes Creek West	24.N	55.E	16	ALL	640.00
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This section of land has a homesite lease, shelter belt, 449.4 acres of cropland with the remainder being grazing. Water sources include a well and dam. *The stream, well, reservoir dam etc. buffer stipulation will be utilized on this tract. The Homesite is covered by Section 28 of the lease.*

5010 Three Buttes Creek East	25.N	56.E	36	ALL	640.00
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This section of land has a homesite lease, 354.6 acres of CRP, and the remainder is grazing land. There is a tributary to Charley Creek and this area is a wetland with some real nice waterholes along the creek, may be spring fed. There is Canada thistle and leafy spurge present on this lease but standard weed stip should be adequate. A seismic review was done a few years ago.

*The CRP stipulation and the stream, wetland, etc. buffer stipulation will be utilized on this lease. Homesite is covered by section 28 of the lease*



DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION

CENTRAL LAND OFFICE



JUDY H. MARTZ, GOVERNOR

1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074  
TELEFAX NUMBER (406) 444-2684

PO BOX 201601  
HELENA, MONTANA 59620-1601

MEMO

*The Rocky Mountain Front sensitive areas (F-2) stipulation will be utilized on application numbers 5057 through 5075.*

To: Teresa Kinley

From: Robert Vlahovich

Date: 1/23/2002

Re: March Oil & Gas Sale Comments

*The sensitive areas stipulation (F-1) will be utilized on application number 5056.*

The following are brief comments by tract number.

5056 - Considerable deer and elk use. Some steep rocky areas, prior timber harvest. North fork Little Creek in south ½ of Section.

5057 - Antelope use. Smith Lake in west portion. Could be considered part of "front".

5058 - Elk Creek in E½. Deer and antelope use. Could be considered part of "front".

5059 - Antelope use. Could be considered part of "front".

5060 - Elk Creek in NW¼. Some leafy spurge noted. Deer and antelope use. Could be considered part of "front".

5061 - Elk Creek in E½. Deer and antelope use. Tipi rings noted above Elk Creek. Could be considered part of "front".

5062 - Four spring developments on site. Deer and antelope use. Could be considered part of "front".

5063 - Spring development in NE portion. Deer and antelope use. Adjacent to Haystack Butte. Could be considered part of "front".

5064 - Three springs on tract. Elk, deer and antelope use. Adjacent to Haystack Butte. Could be considered part of "front".

5065 - Blubber Creek in SE portion. Spring development in NE¼. Elk, deer and antelope use. Could be considered part of "front".

5066 - Elk, deer and antelope use. Could be considered part of "front".

5067 - Deer and antelope use. Grass hay production in some years. Could be considered part of "front".

5068 - Deer and antelope use. Could be considered part of "front".

5069 - Deer and antelope use. Could be considered part of "front".

CONFIDENTIAL

Q-4357

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5070 - Blubber Creek in north portion. Elk, deer and antelope use. Could be considered part of "front".

5071 - Elk Creek runs through tract. Elk, deer and antelope use. Could be considered part of "front".

5072 - Elk, deer and antelope use. Could be considered part of "front".

5073 - Elk, deer and antelope use. Could be considered part of "front".

5074 - Elk, deer and antelope use. Could be considered part of "front".

5075 - Elk, deer and antelope use. Could be considered part of "front".

C:\USER\RV\kinley memo.doc

THE  
JOURNAL  
OF  
THE  
ROYAL ANTHROPOLOGICAL INSTITUTE  
VOLUME 10  
PART 1  
1980

Kinley, Teresa

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From: Aderhold, Mike  
Sent: Wednesday, January 23, 2002 4:14 PM  
To: Kinley, Teresa  
Cc: Sihler, Paul  
Subject: March 5, 2002 Oil and Gas Lease Sale

Teresa - My crew and I have reviewed the 25 tracts in FWP Region 4 up for leasing this quarter. We have strong concerns for four tracts: 5018 (Fergus County) and 5057, 5074 & 5075 (all in Lewis and Clark County and all along the East Front). The Fergus Co. tract between the Big Snowies and Little Snowies is a rich wildlife area for turkeys, white tailed deer, mule deer and elk. Its a moist area with watershed values. Its also important for big game migration and has some fisheries value. The other tracts are in the Haystack Butte, Smith Lake, & Elk Creek area. They are close in and support, at different times of the year, elk, bear and deer and important native vegetation. If possible Teresa, I would like to get the 4(h), conservation stipulation, on these tracts so that if development is ever planned we can take another, closer look at these properties. Again, we appreciate the chance to review and comment on the nominated tracts. Sincerely, Mike Aderhold, Region 4 Supervisor

*For application # 5018 in Fergus County, the 100Ft stream buffer stipulation which will be applied to this tract's lease would cover water and Fisheries. Also, the <sup>TMD</sup> contact DFWP stipulation will be utilized on this tract's lease For wildlife (non-TMD) i.e. as noted above: turkeys, white-tailed deer, mule deer, and elk.*

*The Rocky Mountain Front sensitive areas stipulation will be utilized on the leases For application #'s 5075, 5074, and 5057.*



RECEIVED

JAN 23 2002

D.N.R.C.

Central Land Office  
Conrad Unit

# Memo

**To:** Teresa Kinley, Hydrogeologist, Minerals Management Bureau

**From:** Erik Eneboe, Conrad Unit Manager, CLO

**Date:** January 15, 2002

**Re:** March 5, 2002 Oil and Gas Lease Sale  
Conrad Unit, CLO

Please find attached Steve's comments pertaining to the March 5, 2002 Oil and Gas Lease Sale. Per your request, comments on any non-state owned surfaces are also included.

I recommend proceeding with the standard lease sale on all tracts of land reviewed for this sale. I believe potential development of Oil and Gas operations on these tracts is prudent and is possible using mitigation measures to minimize any adverse environmental impacts.

The tracts reviewed are located in eastern Glacier County and do not require the "Sensitive Area / Rocky Mountain Front" special stipulation. If you have any questions, feel free to call.

cc: Mark Ahner, Area Manager, CLO



DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION  
CONRAD UNIT OFFICE



JUDY MARTZ, GOVERNOR

STATE OF MONTANA

(406) 278-7869  
FAX: (406) 278-7077

PO BOX 961  
CONRAD, MONTANA 59425-0961

January 15, 2002

TO: Teresa Kinley, Hydro geologist, MMB  
FROM: Steve Dobson, LUS, CLO, Conrad Unit  
RE: March 5, 2002 Oil & Gas Lease Sale

App#	Acres	Stipulations
5001	40	Native Range, Prairie Pot Hole Topography, good waterfowl habitat during wet years. <i>The lake/reservoir - 1/8th mile buffer stipulation will be utilized on this tract's lease.</i>
5002	160	Agricultural land in NWSW, S2SW4 Native Range SWNW Waterfowl habitat within native range on wet years. <i>The stream, <sup>wetland</sup> etc. <sup>100-Ft</sup> buffer stipulation will be utilized on this tract's lease.</i>
5003	200	Native Range Waterfowl Habitat on wet years <i>The stream, wetland, etc. 100-Ft. buffer stipulation will be utilized on this tract's lease.</i>





DEPARTMENT OF NATURAL  
RESOURCES AND CONSERVATION  
NORTHEASTERN LAND OFFICE



STATE OF MONTANA

(406) 538-7789 Telephone  
(406) 538-7780 FAX

January 22, 2002

613 NE MAIN  
PO BOX 1021  
LEWISTOWN, MONTANA 59457-1021

MEMORANDUM

TO: Teresa Kinley, Hydrologist/Geologist, Minerals Management Bureau  
FROM: Bill Baumgartner, Land Use Specialist, Lewistown Unit Office 33  
RE: March 5, 2002, Montana Oil and Gas Lease Sale.

The following are the comments for the March 5, 2002, Montana Oil and Gas Lease Sale from the Lewistown Unit Office:

FERGUS (NELO-L, FWP-4)

APP# +5018 Loco Ridge - No Additional Information  
T15N, R20E, Sec 16, All

PETROLEUM

APP# 5014 Teigen  
T15N, R25E, Sec. 16, N $\frac{1}{2}$

- Wildlife - Sagegrouse was noted on the field evaluation. This bird has decreased significantly in numbers and is being watched by the FW&P.
  - Cultural Resources - None found. *The stream, etc. buffer stipulation will be utilized on this tract's lease.*
  - Water - There is an active irrigation ditch in the NE $\frac{1}{4}$  of this tract.
  - CRP - None. All native rangeland except for county road.
  - Soil Stability - The soils are stable and consist of shallow clay and dense clay range sites with good grass production. There is no active erosion.
- The wildlife survey stipulation will be utilized on this tract's lease for sage grouse.*

APP# 5015 Teigen - Little Bear Lake  
T15N, R25E, Sec. 24, SW $\frac{1}{4}$

- Wildlife - there was sage grouse noted on the 1994 field Evaluation. This bird has decreased in numbers and is being watched by the FW&P. *The wildlife survey stipulation will be utilized on this tract for sage grouse.*
- Cultural Resources - None found.
- Water - None.
- CRP - None. All native rangeland.
- Soil Stability - Soils stable, no active erosion. There is a good stand of bluebunch wheatgrass. Grass production is good.
- Timber resources - None.



APP# 5016 Teigen

T15N, R25E, Sec. 29, NW¼, S½

*The wildlife survey stipulation will be utilized  
on this tract for sage grouse*

- Wildlife – Good wildlife habitat along McDonald creek bottom. Pheasants, mule deer, sage grouse noted in field evaluation. Sage grouse populations have declined and are being watched by the FW&P
- Cultural Resources – None found.
- Water – McDonald Creek is an important perennial resource Used for irrigation. *The stream buffer stipulation will be utilized on this tract.*
- CRP – None. All native rangeland
- Soil Stability – Soils are stable, no active erosion and good grass production and establishment.
- Timber resources – None.

APP# 5017 Teigen

T15N, R25E, Sec 30, Lots 1,2,3,4, E½, E½W½

*The wildlife survey stipulation will be  
utilized on this tract for sage grouse.*

- Wildlife – Mule deer and sage grouse noted in field evaluation. Sage grouse populations have declined and are being watched by the FW&P.
- Cultural Resources – None found.
- Water – McDonald Creek is an important perennial resource.
- CRP – None. *The stream buffer stipulation will be utilized on this tract.*
- Soil Stability – Soils are stable, no active erosion and good grass production and establishment.
- Timber Resources – None.



OCT 17 2000

RECEIVED

Teresa Kinley, Hydrologist/Geologist, MMB

OCT 18 2000

From Barny D. Smith, Lewistown Unit Manager, TLMD

D.N.R.C.

RE: Dec. 5, 2000 Oil/Gas Lease Sale  
Lewistown Unit Tracts

\* The cultural resources stipulation will be added to <sup>each</sup> the leases on the Dec. 5, 2000 oil and gas lease sale.

#5009 Studhorse Butte Sec. 7, T26N, R14E NE1/4NW1/4, N1/2NE1/4, SE1/4NE1/4:

Surface is not Trust Land.

Alkali Coulee goes through this tract. Our (old) aerial shows that this is grazing land. "Care should be taken not to damage the coulee bottom or sides while crossing." There are no other apparent special stipulations needed for this tract.

*The stream, etc. buffer stipulation will be added to this tract's lease.*

#5010 Studhorse Butte Sec. 16, T26N, R14E

N1/2 is not state owned. It is most likely grazing land and probably has some teepee \* rings on it. "These should be avoided."

S1/2 is Surface Lease #2938

This is all classified grazing land. There is a P/A gas well in the SW1/4. "There are several \* teepee rings scattered about in the SE1/4. These cultural resources should be avoided. The Lewistown Unit Office must be notified prior to exploration and the seismic line must be flagged and inspected before approval will be granted."

*Comment noted. Covered by operating plan review.*

#5002 Tiger Butte Sec. 29, T27N, R16E

NE1/4NE1/4 State Surface Lease #9238

NE1/4NW1/4 State Surface Lease #9239

This tract is all grazing land, and provides fair habitat for big game. There are no known cultural resources or water bodies. There are no special concerns or stipulations associated with this tract.

*Comment noted*

→ #5027 Loco Ridge All Sec. 16, T13N, R20E

State Surface Lease #6038.

This tract is all classified grazing land. There are no known cultural resources present. There is a natural spring in the center of the section. This tract provides good habitat for big game. There are no special concerns or stipulations associated with this tract either.

*The stream, spring, etc, buffer stipulation will be added to this tract's lease.*





Kinley, Teresa

---

From: Brandenburg, Gary  
Sent: Thursday, January 24, 2002 11:53 AM  
To: Kinley, Teresa  
Subject: Oil & Gas sale comments for two Carbon Co. tracts

Teresa,

You might as well copy me for future sales because they will end up on my desk anyway.

Sec.36, T4S-R21E: State ownership of this lies mostly on a gravelly-benchland above Rock Creek. There is county road access to it on the south. This is basically a dry tract with maybe some ephemeral springs in the coulees. Deer, pronghorns, upland gamebirds and prairie dogs have been seen here. I have no major concerns for denying exploration on it. *The stream, spring, etc. 100-ft buffer stipulation will be utilized on this tract. The wildlife survey stipulation will be utilized on this tract for prairie dogs.*

Sec.16, T5S-R22E: I have a couple concerns on this one. There are approximately 6-miles of fence, installed to enhance management efforts and improve the depleted Elbow Creek riparian corridor that runs south to north through the tract. Any exploration of this tract needs to be sensitive to the Elbow Creek management concerns as well as range improvements. This tract gets frequented by deer, upland gamebirds and occasionally pronghorns.

*1/24/2002 ~2:15 PM.*

*I spoke with Gary about his comments on Sections 16 & 36. On Section 16, he is primarily concerned about protection for the riparian area, and compensation of the lessee for damages to the fence and the new grass seeding that returned this area to range. He thought previous intensive cropping contributed to saline deposits in the riparian zone.*

*The stream, etc. 100-ft buffer stipulation will be utilized on this tract for riparian and water concerns. Compensation for damages is covered in Section 28 of the State of Montana Oil and Gas Lease.*





IN REPLY TO:

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Miles City Field Office  
111 Garryowen Road  
Miles City, Montana 59301

RECEIVED

JAN 25 2002

D.N.R.C.

January 23, 2002

Teresa Kinley  
Dept of Natural Resources & Conservation  
PO Box 201601  
Helena, MT 59620-1601

Dear Ms. Kinley:

This office has reviewed your list of tracts for the March 5, 2002 MT Oil and Gas Lease Sale. One comment was received from our Lands Division in review of the Dawson County tracts, which stated that "a right-of-way may be required across BLM for access to the river bottom tracts, depending on the route chosen, when and if physical access is required".

Thank you for the opportunity to provide our input and if you need further information concerning this comment, please contact Pam Wall, Realty Specialist, at 406-233-2846.

Sincerely,

Fred Wambolt  
Supervisory Land Use Specialist

*The state does not guarantee access to tracts on leases.  
The no-surface occupancy of navigable riverbeds and related  
acreage stipulation will be utilized on Dawson County application  
numbers 5007 and 5008. Therefore, access not required.*







#### APPENDIX D: Public Comments Received Before Deadline

NOTE: For this March 5, 2002 Montana Oil and Gas Lease Sale, MT-DNRC received 4 public comments regarding Rocky Mountain Front tracts in Lewis and Clark County by the January 25, 2002 public comment deadline. These letters advocated application of the Rocky Mountain Front sensitive areas stipulation to tracts in Lewis and Clark County.

The MT-DNRC proposes to apply the Rocky Mountain Front sensitive areas stipulation (number 16 in the application list in Appendix A) to application numbers 5057 through 5075 in Lewis and Clark County. This proposal is due to the location of these school trust lands in northwestern Lewis and Clark County, i.e. (the lower elevation eastern slopes of the Rocky Mountain Front, generally west of Choteau and Augusta) and proximity to areas with concerns including wildlife, water quality, and vegetation.

Pursuant to the Rocky Mountain Front sensitive areas stipulation, "No surface activities shall occur on the lease premises unless and until the Operating Plan or Amendment is approved by the Board." After completion of an environmental review, the Land Board may approve, modify, or deny surface activity on the lease.

Use of the Rocky Mountain Front stipulation by the Land Board results in a lease agreement that expressly precludes any utilization of the surface by the lessee, unless the lessee can formulate an operating and reclamation plan that meets the Land Board's approval as constituting the best use of trust resources or the best interest of the State of Montana. The stipulation also recognizes and requires that any surface utilization of the lease lands would have to adhere to applicable resource guidelines prepared by the Montana Department of Fish, Wildlife and Parks. The stipulation also expressly incorporates a requirement that the environmental impact statement include impact analysis on an ecosystem scale. Therefore, the broad socioeconomic and natural resource concerns expressed by some commentators relative to the overall impacts from surface use of state lands for exploration or development will be addressed if/when a proposal for use is submitted by the lessee. It is important to note that, unlike the large blocks of Federal ownership along the Rocky Mountain Front, a decision by the Land Board on whether to allow school trust lands to be utilized for exploration or development does not determine whether such activity will occur. The state school trust parcels are scattered along the eastern transition area east of the Front, within an area where private mineral ownership is abundant. The Land Board does not have authority over private land interests.

In addition, MT-DNRC proposes to utilize the sensitive areas stipulation (number 15, Appendix A) on one tract in Lewis and Clark County, (application number 5056) due to its location west of Wolf Creek in central Lewis and Clark County and its location within the Montana Natural Heritage Program's lynx area and within an area designated by MT Dept. of Fish Wildlife and Parks as bighorn sheep range.





Mason, Monte

---

From: Gene Sentz [friends@3rivers.net]  
Sent: Thursday, January 04, 2001 8:42 PM  
To: Clinch, Bud  
Subject: Comments on Preliminary Lease Sale List for DNRC's March 5, 2002, Oil and Gas Sale

January 4, 2001

O&G Lease Sale Comments  
c/o Bud Clinch, Director  
Dept of Natural Resources & Conservation  
PO Box 201601  
Helena, MT 59620-1601

RE: Please apply Stipulation 19 to proposed leases on state lands along the Rocky Mountain Front in your March 5 lease sale.

Dear Mr. Clinch, et al:

Please accept this public comment with regard to the Preliminary Lease Sale List for DNRC's March 5, 2002, Oil and Gas Lease Sale.

This latest list includes tracts in Lewis and Clark County, within a number of Sections in T19N, R7W. This township lies along the Rocky Mountain Front and includes Haystack Butte, the historic landmark near Augusta, which Meriwether Lewis passed on his return journey from Travelers' Rest (Lolo) over Lewis & Clark Pass to Great Falls in 1806. Some of these state lands proposed for leasing are beautiful roadless prairies which extend right up to the base of Haystack Butte.

The preliminary lease sale list includes no stipulations on these proposed leases, but your cover letter does say that "the final list will be distributed on or about February 11, 2002, and will also include a listing of any additional stipulations from our environmental review."

Do you intend to apply "Stipulation 19," the Rocky Mountain Front stipulation, to these leases?

We certainly urge you to do that, especially to those tracts near Haystack Butte and other areas close to the Rocky Mountain Front.

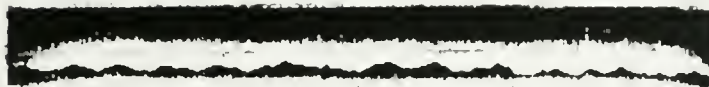
Thank you for this opportunity to comment in writing before your January 25 deadline.

Gene Sentz  
FRIENDS OF THE ROCKY MOUNTAIN FRONT  
PO Box 763  
Choteau, Montana 59422  
406-466-2750  
mailto:friends@3rivers.net

cc: State Land Board members

*The Rocky Mountain Front sensitive areas stipulation will be applied to leases of tracts in T19N, R7W on the March 5, 2002 MT Oil and Gas Lease Sale.*





MONTANA WILDERNESS ASSOCIATION

January 25, 2002

Mr. Monte Mason  
Montana Department of Natural Resources and Conservation  
P.O. Box 201601  
Helena, MT 59620-1601

**RECEIVED**

JAN 25 2002

**D.N.R.C.**

Re: March 2002 Oil and Gas Lease Sale

Dear Mr. Mason:

Please accept the following comments regarding the oil and gas lease applications prepared for the March 5, 2005 oil and gas lease sale. We ask that the conservation lease stipulations (stipulation 19) adopted by the Montana Land Board January 19, 1999, be applied to all leases within the Bob Marshall ecosystem. For the March sale that would include leases: 5056, 5057, 5058, 5059, 5060, 5061, 5062, 5063, 5064, 5065, 5066, 5067, 5068, 5069, 5070, 5071, 5072, 5073, 5074, 5075.

The stipulations adopted by the Land Board recognize the state's investment and trust responsibility in restoring and protecting wildlife in the Bob Marshall ecosystem and provides greater assurance to the public that these resources will continue to be managed wisely. A common policy is needed among land management agencies to respect and protect areas with unique and outstanding wildlife and wildland values, as exist within the Bob Marshall ecosystem.

The Stipulations require the DNRC to fully assess the potential environmental impact of oil and gas development, provide the public with meaningful opportunities to comment, and allow the Land Board the authority to deny surface activity. It is our understanding that the conservation stipulations, adopted in 1999, have been applied to all leases within the Bob Marshall ecosystem. We ask that as a matter of policy, the conservation stipulations continue to be applied to all state owned mineral leases within the Bob Marshall ecosystem.

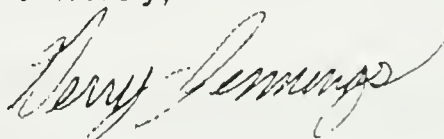
Central Field Office  
1400 First Avenue North, #30 Great Falls, Montana 59401  
t. 406-453-9434 f. 406-453-9434 e: mwarcnt@wildmontana.org  
www.wildmontana.org



We also urge the DNRC to revisit the process of notifying the public about oil and gas leasing. The DNRC has a responsibility to inform the public when when oil and gas leasing is proposed in areas with outstanding natural, historic and wildlife features. The current practice of sending out lists of legal descriptions of proposed leases covering the entire state and then expecting the public to determine which leases might be located in environmentally sensitive areas is difficult and discourages public oversight. It has the effect of placing the interests of those who use public resources for private profit above those for whom these lands are held in trust. A simple solution is for the DNRC to notify major newspapers in the state when leases are proposed in environmentally sensitive areas such as state parks, wildlife management areas, national refuges, national monuments, Forest Service and BLM roadless areas, and wilderness study areas.

We appreciate the opportunity to comment.

Sincerely,



Gerry Jennings  
MWA Island Range Chapter

*For the March 5, 2002 MT Oil and Gas Lease Sale, the Rocky Mountain Front sensitive areas stipulation (F-2) will be applied to application numbers 5057 through 5075 in Lewis and Clark County.*

*The sensitive areas stipulation (F-1) will be applied to application number 5056 in Lewis and Clark County.*





RECEIVED

JAN 25 2002

D.N.R.C.

January 22, 2002

Monte Mason  
Department of Natural Resources and Conservation  
P.O. Box 201601  
Helena, MT 59620-1601

Dear Mr. Mason,

Please add my comments into the official record:

DNRC has received nominations for the March 5, 2002 Oil and Gas Lease Sale and twenty of the nominations are located along the Rocky Mountain Front. As you well know, these lease sites fall within the boundary of the "Interagency Rocky Mountain Front, Wildlife Monitoring/Evaluation Program, Management Guidelines for Selected Species" adopted by the Montana Department of Fish, Wildlife and Parks in September 1987.

Due to the environmentally sensitive nature of this area, I am urging you to apply the "Rocky Mountain Front Sensitive Area Stipulations" to these lease sites. This will ensure the proper environmental reviews are conducted along with a chance for meaningful public comment if any surface activity is proposed.

I am also urging the state to develop a long-term permanent policy for oil and gas leasing located along the Rocky Mountain Front that assures future protection of wildlife habitat and protects the splendor and integrity of this magnificent area. The Rocky Mountain Front should not be considered just another place to drill for oil and gas regardless of who owns the land. The Rocky Mountain front is a national treasure and should be protected at all costs.

Sincerely,



Brad Borst  
Issue Specialist/Organizer  
Montana Environmental Information Center  
P.O. Box 1184  
Helena, MT 59624

*For the March 5, 2002 MT Oil & Gas Lease Sale,*

*The Rocky Mountain Front sensitive areas stipulation<sup>(F-2)</sup> will be applied to application numbers 5057 through 5075 in Lewis and Clark County.*

*The sensitive areas stipulation (F-1) will be applied to application number 5056 in Lewis and Clark County.*

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30 S. Hoback  
Helena, MT 59601

For the March 5, 2002 MT Oil and Gas Lease Sale, the  
Rocky Mountain Front Sensitive area stipulation will be  
applied to App # 5057 through 5075 in Lewis & Clark Co.  
Jennifer L. Thompson, M.A.E.T. (406) 443-5590

RECEIVED

Expressive Therapist  
The sensitive areas stipulation (F-1) will be applied to application # 5056 in Lewis and Clark County  
Specializing in the Creative Arts for Child, Adolescent, and Adult Development

D.N.R.C.

To DNR C,

Jan. 25, 2002

I was concerned to see in the paper that you are selling leases along the Rocky Mountain Front for possible oil and gas exploration. This is a pristine area which I know has sensitive area stipulations on it. I want the State of Montana to be vigilant about enforcing these stipulations and get behind the majority of Montanans who want to preserve the Rocky Mountain Front as it is.

Thank you for your serious  
consideration,

Jennifer L. Thompson







APPENDIX E: Late Comments







